NASSAU COUNTY
DEPARTMENT OF HUMAN SERVICES

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************SPECIAL EDITION***********

In This Issue

CORONAVIRUS DISEASE 2019 (COVID-19)

Social distancing means putting space between yourself and others.

CDC

cdc.gov/COVID19

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Antibody tests could be key to reopening the country. Here's how they work.

Antibody testing will help health experts better assess how many people contracted the novel coronavirus.
Adrianna Rodriguez, Amanda Morris, Jim Sergent, Nicole Schaub, and Janet Loehrke, for USA TODAY

After weeks of sheltering in place, Americans are asking how soon we can return to a more normal life outside our homes. Much of the answer might be in a test. The first phase of testing has been about determining who has COVID-19. The next phase will be about who had it – or may still be fighting it. Instead of looking in our throats for the coronavirus itself, health care workers will look for signs in our blood that we developed antibodies to fight the virus. The results could tell us many things.

Infection rates. Researchers say many people have been asymptomatic – or didn't know they were inflected. Widespread testing would provide insights into how prevalent the most serious cases have been.

Herd immunity. If a large percentage of people in a city or state have those antibodies, researchers might determine there is enough herd immunity to protect those who haven't contracted the virus.
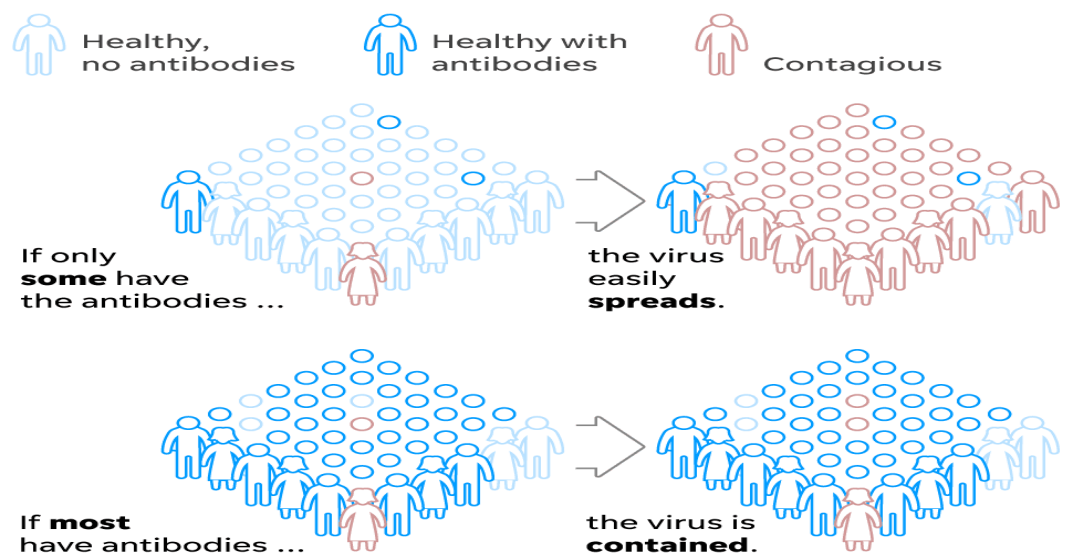
Marc Lipsitch, a professor of epidemiology at Harvard and an expert in public health interventions, told the USA TODAY Editorial Board on April 8 that a significant portion of the population must be immune to the coronavirus before social distancing restrictions can be lifted.

Unproven tests. Inaccurate results: Public health labs worry 'bad data' could taint U.S. recovery from coronavirus crisis.

What is an antibody? Antibodies are the body's way of remembering how it responded to an infection so it can attack again if exposed to the same pathogen. People with antibodies in their blood have immune cells available to fight the virus, which lowers the risk of reinfection.

IgM antibodies appear within days of infection, but fade away after the infection ends.

IgG antibodies appear as the body clears the infection and provide long-term protection.

Antibodies are Y-shaped proteins.

Antibodies are Y-shaped proteins produced by white blood cells to help stop a virus from intruding. Antibody tests look for two antibodies in the blood, immunoglobulin M (IgM) and immunoglobulin G (IgG). IgM and IgG antibodies fight all kinds of infections. The blood tests for COVID-19 look for antibodies specific to this coronavirus, which shows whether the body is producing antibodies to it or to others such as the seasonal flu.

How tests find coronavirus antibodies. To create an antibody test, researchers isolate specific parts of the genetic material from a virus that correspond to the virus' outermost vulnerable layer – the place where antibodies attach themselves.

The novel coronavirus uses a series of spikes on its outside layer to attach to cells and infect them.

The body's white blood cells respond creating ...

**uniquely shaped antibodies** that bind to the spikes, disabling the virus.
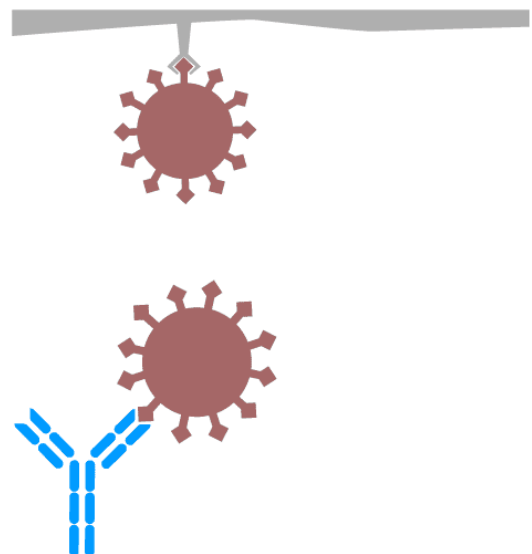
Once researchers isolate specific parts of the virus' genetic code, or RNA, they inject it into other types of mammal cells to make those cells grow with the same structure, or outermost shell, as the novel coronavirus.

"As they grow, they'll start to produce the spike protein," University of Arizona immunologist Deepta Bhattacharya said. "You can basically trick the cells into making what you want."

How to test for coronavirus antigens. The entire virus structure is known as an antigen – a foreign substance that engages the immune system. An effective lab-grown spike protein would have the same shape as the novel coronavirus.

**Lab-grown antigens** are put into a special plate that immobilizes and concentrates them on the bottom.
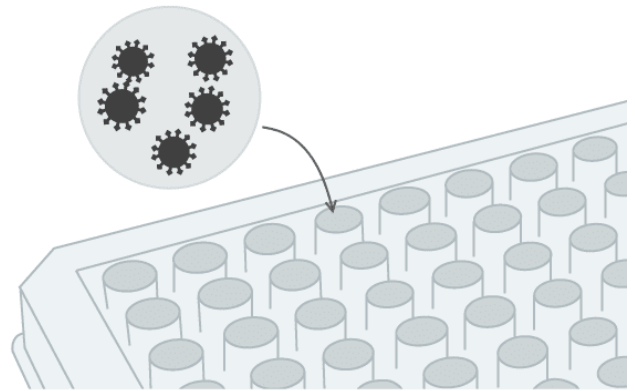
Health care workers take a sample of a patient's blood and isolate the parts of the blood that contain the antibodies into a serum. If a patient has coronavirus antibodies, they would be found in the blood, along with the other antibodies.

Blood is drawn

1 Parts of the blood containing antibodies are extracted into a serum.

2 The serum and a detector antibody are added into the special-plate mixture.
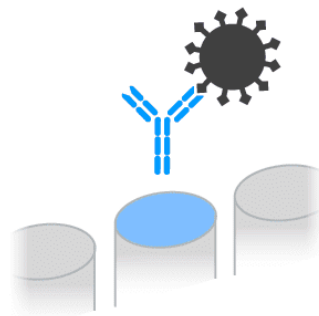
3 If the liquid in the plate changes color, it means a patient has antibodies for the novel coronavirus in their blood.
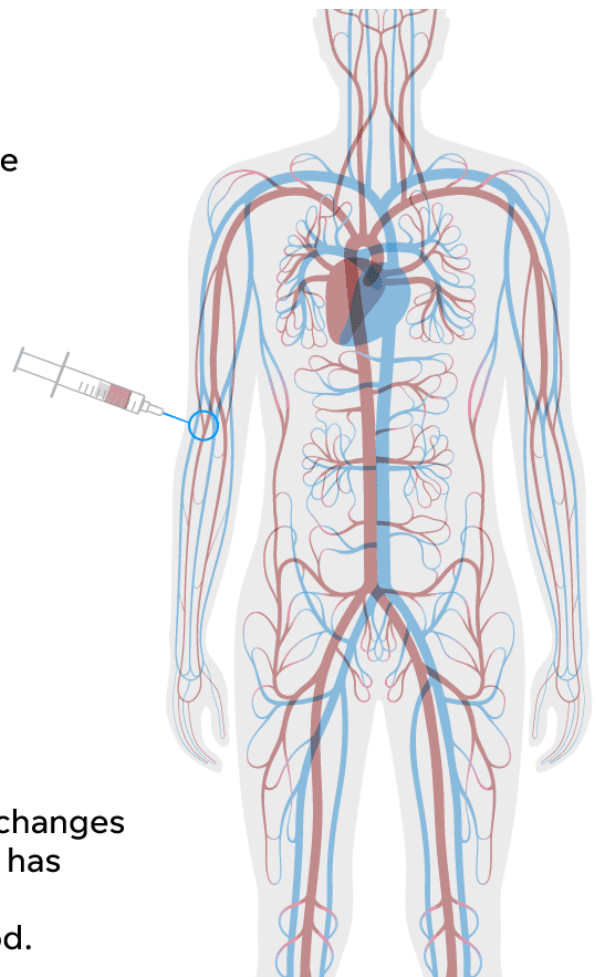
Other tests can involve just a simple finger prick to draw a blood sample, which is collected with a plastic straw and deposited in a small cartridge along with a special solution of liquids that will cause a reaction. Ten minutes later, the test promises to tell you whether you've had COVID-19. These tests are one of many antibody tests the FDA approved under its Emergency Use Authorization, which means they haven't been thoroughly reviewed by the agency and are not guaranteed to be accurate. In a clinical evaluation, Zhejiang Orient Gene Biotech reported the finger-prick tests to be 61.8% to

94.4% sensitive, depending on the type of antibody that shows up in the test results, which means that the tests are reported to give accurate results 61.8% to 94.4% of the time.

The challenge of creating a coronavirus blood test. Dr. Raed Dweik, chairman of the Respiratory Institute at the Cleveland Clinic, said some of the tests he has seen aren't accurate enough to determine whether someone is truly immune to the coronavirus. That's because antibodies for the coronavirus that causes COVID-19 look very similar to other coronavirus antibodies that cause illnesses, such as the common cold.

False positives
If tests aren't accurate enough, antibodies for viruses like the common cold could be mistaken for the novel coronavirus.

Common cold   Coronavirus

Common cold antibody
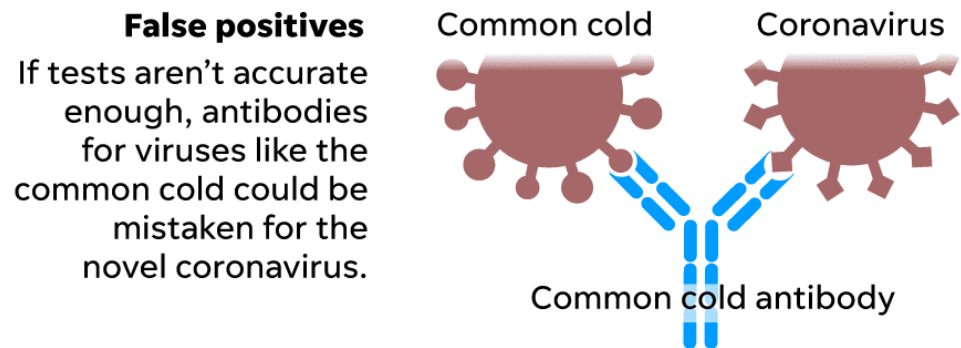
Tests could mistakenly identify antibodies as being for the coronavirus that causes COVID-19, producing a false positive. Dweik said it will take more time to develop a test that can accurately detect the right antibodies.

Why antibody testing is key to reopening America. Dr. Neeraj Sood, professor and vice dean of research and faculty at the University of Southern California Sol Price School of Public Policy, leads a study in conjunction with the Los Angeles County Department of Public Health using antibody tests to determine how widely coronavirus has spread and how deadly it is. As of Sunday, there have been more than 600 deaths related to COVID-19 in the county, according to the health department.

If, based on the antibody study, researchers determine that about 5,000 people had been infected, it would be considered a deadly disease. If more than 2 million people had been infected, it wouldn't be considered that dangerous. "If we find out COVID is far less deadly than the flu, we can open up the economy.

You don't need to hit herd immunity to open it up," Sood said. "But if you find out that COVID is 10 times deadlier than the flu, then you have to keep it closed."

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Here Are Some Tips for Working from Home

The outbreak of the coronavirus has most people working from home. If you're new to working remotely, these tips from a home-office pro can help you stay productive and maintain balance.
By Jill Duffy

The global spread of COVID-19, the novel coronavirus, is keeping people at home. Much of the world is on lockdown, and, even in places that aren't, people are encouraged to stay at home. Where it's possible, employers are encouraging or requiring people to work from home for an indeterminate amount of time. If you're new to the work-from-home lifestyle, whether due to coronavirus or because you've managed to find a remote-based job, you'll need to change some of your habits and routines to make working from home a success. I've worked 100 percent remotely for more than five years, and I have some friends and colleagues who've done it, too. We all face unique challenges, not only because we have different personalities, but also due to our various lifestyles and the type of work we do. Still, many of the core issues we face as remote employees are the same. Everyone who works remotely has to figure out when to work, where to work, and how to create boundaries between work and personal life. What about office equipment, career development, training opportunities, and building relationships with colleagues? Working remotely, especially when working from home most of the time, means figuring out these issues and others. Here are some tips for leading a better and more productive remote-working life, based on my experience and what I've learned from others.

- **Don't Hesitate to Ask for What You Need**
  If you're employed by a company or organization that supports your work-from-home setup, request the equipment you need as soon as you start working from home, or within a day or two when you realize you need something new. It's extremely important to set precedents early that you will ask for what you need to get your job done comfortably, including the right monitor, keyboard, mouse, chair, printer, software, and so forth. Organizations that are accustomed to remote employees often have a budget for home office equipment. Ask what it is and how often it's renewed. It also doesn't hurt to ask whether there's a loan agreement or who will pay for return shipping or disposal of outdated equipment. If you're working from home unexpectedly due to coronavirus, ask for what you need within reason. You could be working from home for weeks on end, and you should be comfortable, but ordering a new office chair and desk might be asking too much. Consider a mouse and keyboard, plus a back-supporting cushion instead. For more tips on getting your new space in shape, you can read our story on everything you need to set up an ergonomic office.

- **Keep a Dedicated Office Space**
  In an ideal world, remote employees would have not only a dedicated office, but also two computers, one for work and one for personal use. It's more secure for the employer, and it lets you do all your NSFW

activities in private. But not everyone has a separate office in their home and keeping two machines isn't always realistic. Instead, dedicate a desk and some peripherals only for work use. For example, when your laptop is hooked up to the monitor and external keyboard, it's work time. When it's on your lap, that's personal time. You may want to go as far as partitioning your hard drive and creating a separate user account for work.

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Tips for Safe Grocery Shopping During the Coronavirus Outbreak

We reached out to some of the nation's most popular grocery stores to find out how to shop safely to protect yourself, store employees and other shoppers.
By Lauren Wicks

We're all trying to find our new normal during the coronavirus pandemic. Many of us have suddenly become home-schooling parents working from home or are out of a job indefinitely. Even our everyday rituals have changed—we're streaming workouts from our local fitness studios, hosting virtual happy hours and holding off on all our appointments until further notice. Grocery shopping is one of those basic rituals we never thought twice about until recently, but we need to be vigilant in protecting ourselves, other shoppers and store employees. Here are a couple of ways to practice safe (and friendly) shopping next time you need to stock up.

- **Keep Your Hands to Yourself as Much as Possible**
  Social distancing rules still apply in the grocery store, so a friendly wave is all that's needed if you run into your neighbor in the cereal aisle. Additionally, it's just as important to avoid touching your nose, mouth and eyes if you can help it. Infectious Disease Specialist Amira Albert Roess, Ph.D., M.P.H., previously told us touching your face is one of the most common ways to introduce an illness. Be sure to cough or sneeze into your elbow or a tissue. If you need help reaching or finding something, ask an employee.

- **Shop During Low-Traffic Hours**
  While there's probably no such thing as "normal" traffic hours at the grocery store these days, it's worth calling your local grocery store and asking them when a good time to come in would be. Hours are likely different during this time, as stores need to spend more time on new inventory, cleaning and sanitizing protocols. Be sure to ask about any "senior hours" your store is offering—most chains are designating certain periods of time so elderly customers can shop safely—and avoid making a grocery run during those times, unless you're a senior yourself. If you
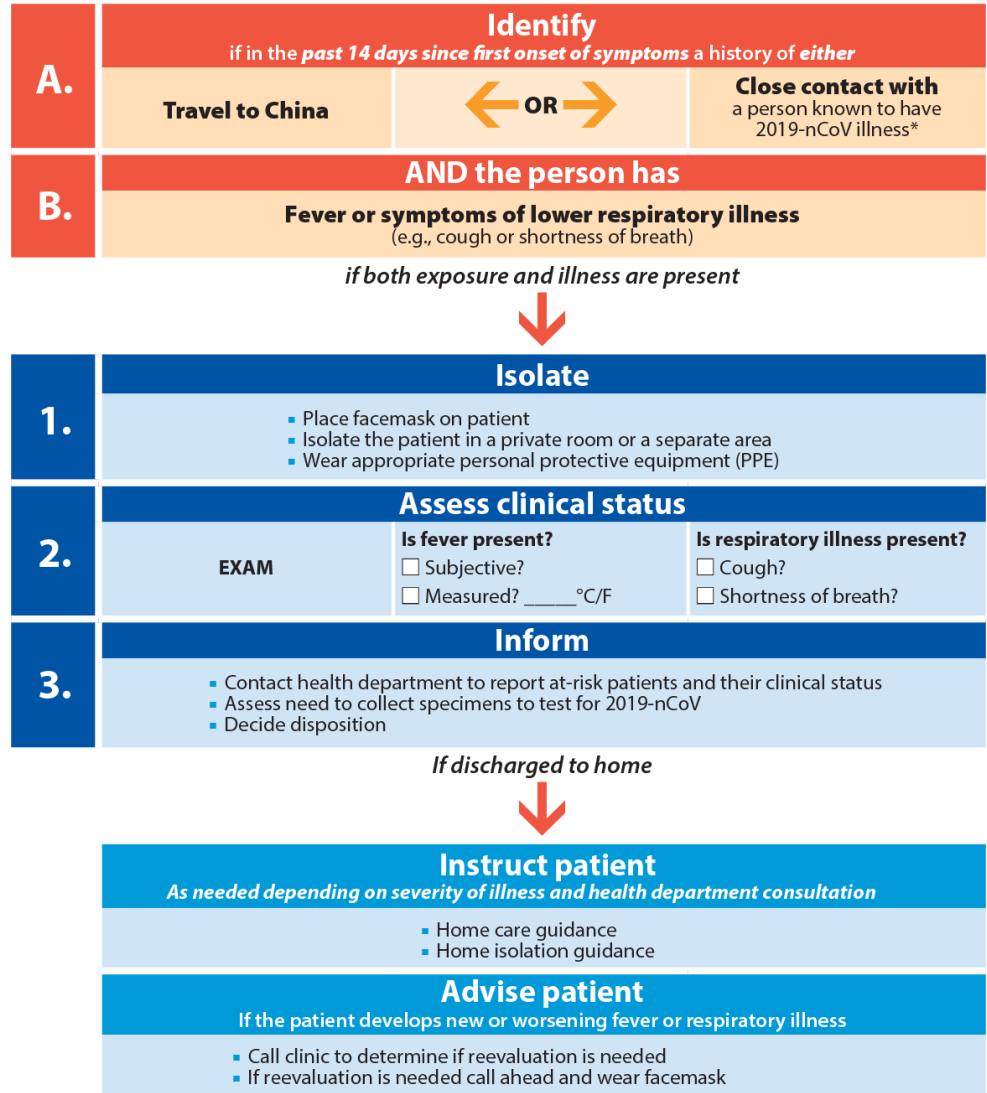
do find yourself showing up during these hours, you may want to consider shopping at another store out of courtesy.

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Flowchart to Identify and Assess 2019 Novel Coronavirus

For the evaluation of patients who may be ill with or who may have been exposed to 2019 Novel Coronavirus (2019-nCoV)

A.
Identify
if in the *past 14 days since first onset of symptoms* a history of *either*

| **Travel to China** | ← OR → | **Close contact with** a person known to have 2019-nCoV illness* |

B.
AND the person has
Fever or symptoms of lower respiratory illness
(e.g., cough or shortness of breath)

if both exposure and illness are present

↓

1.
Isolate
- Place facemask on patient
- Isolate the patient in a private room or a separate area
- Wear appropriate personal protective equipment (PPE)

2.
Assess clinical status

| EXAM | **Is fever present?** ☐ Subjective? ☐ Measured? _____°C/F | **Is respiratory illness present?** ☐ Cough? ☐ Shortness of breath? |

3.
Inform
- Contact health department to report at-risk patients and their clinical status
- Assess need to collect specimens to test for 2019-nCoV
- Decide disposition

If discharged to home

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Instruct patient
As needed depending on severity of illness and health department consultation
- Home care guidance
- Home isolation guidance

Advise patient
If the patient develops new or worsening fever or respiratory illness
- Call clinic to determine if reevaluation is needed
- If reevaluation is needed call ahead and wear facemask

* Documentation of laboratory-confirmation of 2019-nCoV may not be possible for travelers or persons caring for patients in other countries. For more clarification on the definition for close contact see CDC's Interim Guidance for Healthcare Professionals: www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html

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COVID-19 TESTING

COVID-19 Testing available at Hempstead and Freeport
If you think you or someone in your family has COVID-19,
CALL (516) 296-3742

Testing for COVID-19 Virus is limited in New York State.
If you have any of the below symptoms call for screening:

FEVER   **COUGH**   **SHORTNESS OF BREATH**

Anyone with any of these symptoms should be tested as soon as possible.

Testing will be by appointment ONLY in an outdoor facility at:

Hempstead Health Center
135 Main Street
Hempstead, NY 11550

South Ocean Care Health Center
101 South Bergen
Freeport NY 11520

Testing is from 9:00 A.M. to 1:00 P.M.
Testing will be provided by appointment ONLY.
Call 516-296-3742 to inquire about an appointment.

All are welcome to call, regardless of insurance or immigration status.

Thank you and please stay healthly.

Family Health Centers
LONG ISLAND FQHC, INC.

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