

What You Need to Know

A look at the struggle to increase the supply of COVID-19 vaccines, the importance of continuing to wear masks even after being inoculated, how mental health is tied to aging, and more

Why Can't We Make Vaccines Faster?



Why is it taking so long to vaccinate everyone in the United States against COVID-19? Despite calls to make more vaccines, that “solution” could lead to other problems, and **it is much easier said than done**. First off, there are still about 300 million Americans waiting for their shot (compared to about **20 million fully vaccinated** in the country so far), and producing the vaccines is complicated, requiring specialized equipment that most manufacturing facilities simply don't have. In fact, a popular saying about vaccines is “the process is the product.”

This particular product leverages a new process developed specifically for this innovative approach to vaccination: using mRNA to teach the human body to make spike proteins that can block the COVID-19 virus from attaching to and infecting cells. And even if existing factories could be retooled to do the job, that would have a ripple effect on the availability of other critical medications and resources, as well as have an impact on worldwide supply and demand for the vaccine—for 7.7 billion people.

As we ramp up production with the goal of 200 million doses by summer, some factories may be able to help with packaging vaccines to speed up the process; however, until the Food and Drug Administration approves other, more traditional vaccines, which more facilities might be able to produce to help make up the shortfall, it seems vaccination is just going to take as long as it takes.

Source: BuzzFeed News

Medication Safety — Got Your Shot? Keep Your Mask



If you've already been vaccinated for COVID-19, don't throw away those masks yet! According to Dr. Anthony Fauci, White House health advisor and director of the National Institute of Allergy and Infectious Diseases, although the vaccine is highly effective at preventing vaccinated people from getting sick with COVID-19, it is still unknown whether it will prevent them from spreading the virus to others.

In other words, while you may not experience any symptoms of the virus or may avoid severe illness if you are infected, people around you who haven't been vaccinated could still be vulnerable. As researchers collect data from the earliest people who received the vaccine on whether they show a reduced viral load, the best thing to do—as has been true over the last year—is to **continue wearing a mask to protect others**.

As much as we all want life to return to pre-pandemic normal, face masks, handwashing, and social distancing are here to stay, at least for a little while longer.
Source: CNBC

Mental Health — Is Age a State of Mind?



We know that a person's mental health can also affect their physical health and increase their risk for developing age-related diseases; however, a recent study in *JAMA Psychiatry* draws an even clearer connection between the mind and body, finding that those who experience mental disorders such as depression and schizophrenia in their youth actually **may age more quickly in adulthood**.

The effects manifested as problems most commonly associated with old age: poor hearing, vision, motor function, balance, cognition. Independent observers of those in the study (1,000 New Zealanders followed from birth in 1972 to age 45) also described them as looking older than their years. Researchers provide some explanations behind this accelerated aging in those with mental disorders, including lack of exercise, unhealthy diet, inadequate healthcare, neurological problems, and stress.

Armed with this information about the links between mental health and aging, and with better prevention, identification, and treatment of mental health problems, as well as close monitoring, healthcare providers may be able to forestall these pitfalls and give their patients healthier, more fulfilling, and longer lives.
Source: CNN



THE BIGGER PICTURE

with Regina Hoffman

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Patient Perspective — Home Trials



Clinical trials—studying the effects of new or experimental medications in voluntary human patients—were among the many things temporarily put on hold during the pandemic, as universities closed and hospitals focused on COVID-19. These studies typically involve regular, face-to-face interactions with volunteers; however, just as telemedicine and Zooming have risen to the challenge of social distancing, **so too have clinical trials gone virtual.**

Rather than meeting in person, some researchers mailed medications to patients at home and examined them over video chat, while patients took it upon themselves to measure their own vitals and text images of the readings to clinicians. In other cases, scientists adapted to find different ways of collecting the information they needed, such as having patients use labs closer to home and reviewing the results together online.

The result has been so successful that it may have completely altered the way clinical studies will be conducted even after the pandemic is over. Remote trials may reduce costs and increase enrollment, as participation becomes more convenient and the pool for recruitment expands—which will have the additional benefit of greater diversity in the volunteer population. While going virtual won't be the right fit for every study, or for every patient, the practice adds another tool for research and opens up possibilities that likely would not have been considered if COVID-19 had not made them necessary.

Source: New York Times

Improving Diagnosis — In Gut We Trust



For 12 years, Jenna Farmer's doctors told her she "just" had irritable bowel syndrome (IBS)—until her condition finally was correctly diagnosed as Crohn's disease. This long period of misdiagnosis made it hard for her to trust medical professionals, test results, and treatments; however, she knows that it's important to trust your doctors and have a strong relationship with them in order to advocate for yourself and be engaged in your care. Now committed to raising awareness of living with irritable bowel disease (IBD), **she shares some useful tips on rebuilding trust with doctors after a misdiagnosis**, which include cognitive behavioral therapy, being honest with your medical team about your trust issues, and finding the right team for you.

Source: Healthline

National Doctors' Day

For National Doctors' Day on March 30, we will be posting stories of Pennsylvania physicians to thank them for their service and courage battling COVID-19.

Doctors, please consider sharing your story! Either a short video or write-up describing your experiences over this past year.

Send your story to patientsafetyauthority@pa.gov by March 26.



Long-Term Care — Long-Term Problems in Long-Term Care



The pandemic has shined a light on disparities in healthcare which contribute to the disproportionate impact of COVID-19 on minority patients, and a new national study in *JAMA Network Open* reveals that **nursing homes with 40% or more Black and Hispanic residents had triple the number of COVID-19 deaths as homes with 97% or more white residents**. This can be attributed to the likelihood of nonwhite residents to live in larger facilities, which are more susceptible to the spread of viruses and may have lower nurse staffing ratios, among other factors, as well as the greater rates of transmission of COVID-19 in minority communities.

This is one of few studies to examine the cross-section of minority populations and long-term care populations, which each account for a large number of COVID-19 deaths, bringing focus to how structural racism and inequality make them more vulnerable to infection. The prioritization of staff in long-term care facilities for COVID-19 vaccination will help mitigate the situation, but there is much work to be done to address these long-standing inequities and ensure that communities of color are not left behind as the vaccine is distributed more broadly to the public.

Source: AARP

Pediatrics — Teens Step Up to Step Out



We all want schools open and safe for kids, teachers, and staff alike. Reaching herd immunity to COVID-19—when most of the population is immune to a disease—is a key part of making that happen, but so far the available vaccines are only approved for adults.

Research is already underway to test them on teenagers, who contract the disease more readily than younger children and, since they may not experience severe symptoms or may be asymptomatic, are very effective at spreading it; but these efforts require testing in a group not well known for following directions, for reliability, or for keeping confidential information such as their enrollment off social media.

Some kids have been stepping up though and volunteering in clinical trials, with results for the Pfizer vaccine in 12- to 15-year-olds expected in the coming months. Moderna is currently recruiting for their trials and should have data this summer. Once vaccines have been submitted to the Food and Drug Administration for review and approval for adolescent use, the next step will be to test them in children as young as 5.

Source: New York Times



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