



COVID-19 Digest Issue 41

February 5, 2021

CLINICAL PEARL

- [A new study from Washington University School of Medicine in St. Louis](#) suggests that measuring mitochondrial DNA in the blood of patients with COVID-19 can help predict which patients are at highest risk of severe disease. The researchers evaluated 97 patients with COVID-19 at Barnes-Jewish Hospital, measuring their mitochondrial DNA levels on the first day of their hospital stays. They found that mitochondrial DNA levels were much higher in patients who eventually were admitted to the ICU, intubated or died. The researchers found this association held independently of a patient's age, sex and underlying health conditions. On average, mitochondrial DNA levels were about tenfold higher in patients with COVID-19 who developed severe lung dysfunction or eventually died. Those with elevated levels were almost six times more likely to be intubated, three times more likely to be admitted to the ICU and almost twice as likely to die compared with those with lower levels. The test predicted outcomes as well as or better than existing markers of inflammation currently measured in patients hospitalized with COVID-19. Most other markers of inflammation measured in patients with COVID-19, including those still under investigation, are general markers of systemic inflammation, rather than inflammation specific to cell death. If validated in a large multi-center trial, this test could also potentially serve as a way to monitor the effectiveness of new therapies since effective treatments would presumably lower mitochondrial DNA levels. The method developed by the St Louis team allows mitochondrial DNA levels to be quantified directly in the blood. Without requiring intermediate steps to extract DNA from the blood, this technique returns results in less than an hour. Moreover, because it uses the same machinery that processes standard PCR tests for COVID-19, the test could easily be performed in most hospital settings.

PUBLIC HEALTH UPDATE

- CDC: [Requirement for Face Masks on Public Transportation Conveyances and at Transportation Hubs](#)

GUIDANCE/GUIDELINE

- WHO: [Interim recommendations for use of the Moderna mRNA-1273 vaccine against COVID-19](#)
- [WHO recommends follow-up care, low-dose anticoagulants for COVID-19 patients](#)

RESOURCES

- CDC Clinician Outreach and Communication Activity (COCA) Webinar - [Treating Long COVID: Clinician Experience with Post-Acute COVID-19 Care](#)
- [MMWR Weekly COVID-19 Briefing Podcast](#)
- IDSA resources:
 - [IDSA Media Briefing with CDC Experts](#)
 - CDC/IDSA COVID-19 Clinician Call: [Monoclonal Antibodies Update & More on COVID-19 Vaccines](#)
 - [Theater of War: A Focus on Physician Mental Health](#)
- Society of Critical Care Medicine: [Antibiotic Stewardship Crisis during COVID-19](#)
- JAMA Learning Network:
 - [Understanding SARS-CoV-2 Genetic Variants](#)
 - [Coronavirus Update With Peter Piot, MD, PhD](#)
- [COVID-19 Vaccine And The Black Community: A Tyler Perry Special](#)
- COVID Collaborative: [COVID-19 Action in the Biden Era: A Fireside Chat with Dr. Fauci](#)





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- Apple Podcast: [Where are the Rapid Tests?](#) Interview with Harvard epidemiologist Dr. Michael Mina about the game-changing potential of affordable at-home rapid testing
- Our World in Data: [Coronavirus \(COVID-19\) Vaccinations](#)
- Public Health Emergency: [Special Projects for Equitable and Efficient Distribution \(SPEED\) of COVID-19 Outpatient Therapeutics](#)
- Public Health Communications Collaborative: [Answers to Tough Questions about Public Health](#)

ACADEMIC/RESEARCH PAPERS

- *Public Health England*
 - [Investigation of novel SARS-CoV-2 variant -Variant of Concern 202012/01 Technical briefing 5](#)
- *Science*
 - [Neutralization of SARS-CoV-2 lineage B.1.1.7 pseudovirus by BNT162b2 vaccine-elicited human sera](#)
 - [Severely ill COVID-19 patients display impaired exhaustion features in SARS-CoV-2-reactive CD8+ T cells](#)
 - [Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection](#)
- *bioRxiv*
 - [Neutralization of SARS-CoV-2 spike 69/70 deletion, E484K, and N501Y variants by 2 BNT162b2 vaccine-elicited sera](#)
- *medRxiv*
 - [SARS-CoV-2 B.1.1.7 escape from mRNA vaccine-elicited neutralizing antibodies](#)
 - [Robust spike antibody responses and increased reactogenicity in seropositive individuals after a single dose of SARS-CoV-2 mRNA vaccine](#)
 - [Single Dose Vaccination in Healthcare Workers Previously Infected with SARS-CoV-2](#)
 - [Do antibody positive healthcare workers have lower SARS-CoV-2 infection rates than antibody negative healthcare workers? Large multi-centre prospective cohort study \(the SIREN study\), England: June to November 2020](#)
 - [Immunisation, asymptomatic infection, herd immunity and the new variants of COVID 19](#)
 - [Efficacy of Colchicine in Non-Hospitalized Patients with COVID-19](#)
 - [Effect of Vitamin D3 Supplementation vs Placebo on Hospital Length of Stay in Patients with Severe COVID-19: A Multicenter, Double-blind, Randomized Controlled Trial](#)
 - [Inward and outward effectiveness of cloth masks, a surgical mask, and a face shield](#)
- *The Lancet*
 - [Single Dose Administration, And The Influence Of The Timing Of The Booster Dose On Immunogenicity and Efficacy Of ChAdOx1 nCoV-19 \(AZD1222\) Vaccine](#)
 - [Safety and efficacy of an rAd26 and rAd5 vector-based heterologous prime-boost COVID-19 vaccine: an interim analysis of a randomised controlled phase 3 trial in Russia](#)
 - [Sputnik V COVID-19 vaccine candidate appears safe and effective](#)
 - [Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence](#)
- *Clinical Infectious Diseases*
 - [Accelerate COVID-19 Vaccine Rollout by Delaying the Second Dose of mRNA Vaccines](#)
 - [The case against delaying SARS-CoV-2 mRNA vaccine boosting doses](#)
 - [Remote Household Observation for Non-influenza Respiratory Viral Illness](#)





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- *JAMA*
 - [SARS-CoV-2 Vaccines and the Growing Threat of Viral Variants](#)
 - [Rapid Implementation of a Vaccination Superstation](#)
 - [Data and Policy to Guide Opening Schools Safely to Limit the Spread of SARS-CoV-2 Infection](#)
 - [Association of Intravenous Immunoglobulins Plus Methylprednisolone vs Immunoglobulins Alone With Course of Fever in Multisystem Inflammatory Syndrome in Children](#)
 - [Association of Social and Demographic Factors With COVID-19 Incidence and Death Rates in the US](#)
 - [Outcomes of COVID-19 Among Hospitalized Health Care Workers in North America](#)
 - [Association Between Receipt of Unemployment Insurance and Food Insecurity Among People Who Lost Employment During the COVID-19 Pandemic in the United States](#)
 - [Association of Smoking and Cumulative Pack-Year Exposure With COVID-19 Outcomes in the Cleveland Clinic COVID-19 Registry](#)
 - [Change in Reported Adherence to Nonpharmaceutical Interventions During the COVID-19 Pandemic, April–November 2020](#)
 - [Respiratory and Psychophysical Sequelae Among Patients With COVID-19 Four Months After Hospital Discharge](#)
 - [Assessment of Maternal and Neonatal Cord Blood SARS-CoV-2 Antibodies and Placental Transfer Ratios](#)
- *Journal of Virology*
 - [Non-steroidal anti-inflammatory drugs dampen the cytokine and antibody response to SARS-CoV-2 infection](#)
- *Intensive Care Medicine*
 - [Extracorporeal membrane oxygenation in patients with severe respiratory failure from COVID-19](#)
- *Anaesthesia*
 - [Mortality in patients admitted to intensive care with COVID-19: an updated systematic review and meta-analysis of observational studies](#)
- *ATS Journal*
 - [Causes and Circumstances of Death Among Patients Hospitalized with COVID-19: A Retrospective Cohort Study](#)
- *Journal of Cardiothoracic and Vascular Anesthesia*
 - [Corticosteroids for Patients With Coronavirus Disease 2019 \(COVID-19\) With Different Disease Severity: A Meta-Analysis of Randomized Clinical Trials](#)
- *Annals of Internal Medicine*
 - [Quantification of Occupational and Community Risk Factors for SARS-CoV-2 Seropositivity Among Health Care Workers in a Large U.S. Health Care System](#)
- *Emerging Infectious Diseases*
 - [Post-Vaccination COVID-19 among Healthcare Workers, Israel](#)
 - [Addressing COVID-19 Misinformation on Social Media Preemptively and Responsively](#)
 - [COVID-19–Related Misinformation among Parents of Patients with Pediatric Cancer](#)
 - [Characteristics of Patients Co-infected with Severe Acute Respiratory Syndrome Coronavirus 2 and Dengue Virus, Buenos Aires, Argentina, March–June 2020](#)
 - [Population-Based Serosurvey for Severe Acute Respiratory Syndrome Coronavirus 2 Transmission, Chennai, India](#)
 - [Seroprevalence of SARS-CoV-2 in Guilan Province, Iran, April 2020](#)
 - [Long-Term Humoral Immune Response in Persons with Asymptomatic or Mild SARS-CoV-2 Infection, Vietnam](#)





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- [Estimating Transmission Parameters for COVID-19 Clusters by Using Symptom Onset Data, Singapore, January–April 2020](#)
- [Prevalence and Time Trend of SARS-CoV-2 Infection in Puducherry, India, August–October 2020](#)
- *Gao Report*
 - [COVID-19: Critical Vaccine Distribution, Supply Chain, Program Integrity, and Other Challenges Require Focused Federal Attention](#)
- *Office of National Statistics*
 - [Coronavirus \(COVID-19\) Infection Survey: characteristics of people testing positive for COVID-19 in England, 27 January 2021](#)

MMWR

- [Demographic Characteristics of Persons Vaccinated During the First Month of the COVID-19 Vaccination Program — United States, December 14, 2020–January 14, 2021](#)
- [Early COVID-19 First-Dose Vaccination Coverage Among Residents and Staff Members of Skilled Nursing Facilities Participating in the Pharmacy Partnership for Long-Term Care Program — United States, December 2020–January 2021](#)
- [Trends in Outbreak-Associated Cases of COVID-19 — Wisconsin, March–November 2020](#)
- [SARS-CoV-2 Transmission Associated with High School Wrestling Tournaments — Florida, December 2020–January 2021](#)
- [Response to a COVID-19 Outbreak on a University Campus — Indiana, August 2020](#)
- [Sexual Orientation Disparities in Risk Factors for Adverse COVID-19–Related Outcomes, by Race/Ethnicity — Behavioral Risk Factor Surveillance System, United States, 2017–2019](#)
- [Impact of COVID-19 on Cervical Cancer Screening Rates Among Women Aged 21–65 Years in a Large Integrated Health Care System — Southern California, January 1–September 30, 2019 and January 1–September 30, 2020](#)
- [Decreases in Young Children Who Received Blood Lead Level Testing During COVID-19—34 Jurisdictions, January–May 2020](#)
- [Racial and Ethnic Disparities in the Prevalence of Stress and Worry, Mental Health Conditions, and Increased Substance Use Among Adults During the COVID-19 Pandemic — United States, April and May 2020](#)

HOT OFF THE (LAY) PRESS

- *Science News*
 - [New coronavirus variants could cause more reinfections, require updated vaccines](#)
- *New York Times*
 - [Coronavirus Drug and Treatment Tracker](#)
 - [How Nine Covid-19 Vaccines Work](#)
 - [The New Virus Strains Make the Next 6 Weeks Crucial](#)
 - [In U.K. Hospitals, a Desperate Battle Against a Threat Many Saw Coming](#)
 - [A Parallel Pandemic Hits Health Care Workers: Trauma and Exhaustion](#)
 - [A California University Tries to Shield an Entire City From Coronavirus](#)
 - [Two Masks Are the New Masks](#)
 - [New virus cases at U.S. nursing homes have fallen steadily since vaccination began](#)
 - [Vaccinations are rising as the U.S. races to outrun the rapidly spreading variants](#)
 - [How the Search for Covid-19 Treatments Faltered While Vaccines Sped Ahead](#)





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- [Health workers were stuck in the snow with vaccines, so they improvised](#)
- [Which Covid Vaccine Should You Get? Experts Cite the Effect Against Severe Disease](#)
- [Had Covid? You May Need Only One Dose of Vaccine, Study Suggests](#)
- [Tyler Perry Gets Covid-19 Vaccine on TV to Reassure Black Skeptics](#)
- [The Wealthy Are Getting More Vaccinations, Even in Poorer Neighborhoods](#)
- [Good Vaccine News \(a nice synthesis of what we know\)](#)
- [The E.U. approves AstraZeneca's vaccine and moves to restrict it from sending doses outside the bloc](#)
- [Correction: Researchers said the Oxford-AstraZeneca vaccine may reduce coronavirus transmission; they did not find that it substantially slows it.](#)
- [Johnson & Johnson announced that its one-dose vaccine provided strong protection against Covid-19. It was less effective against a new variant.](#)
- [Johnson & Johnson's Vaccine Offers Strong Protection but Fuels Concern About Variants](#)
- [Novavax reported that its vaccine works well, except on the variant first found in South Africa, which was detected in the U.S. for the first time.](#)
- [After a Rocky Start, Novavax Vaccine Could Be Here by Summer](#)
- **BBC**
 - [Novavax Covid-19 vaccine shows 89% efficacy in UK trials](#)
 - [How effective is a single vaccine dose against Covid-19?](#)
- **AstraZeneca Press Release**
 - [COVID-19 Vaccine AstraZeneca confirms 100% protection against severe disease, hospitalisation and death in the primary analysis of Phase III trials](#)
- **STAT News**
 - [Novavax says its Covid-19 vaccine is 90% effective, but far less so against one variant](#)
 - [J&J one-dose Covid vaccine is 66% effective, a weapon but not a knockout punch](#)
 - [Comparing the Covid-19 vaccines developed by Pfizer, Moderna, and Johnson & Johnson](#)
- **NPR**
 - [Novavax COVID-19 Vaccine Effective, But Less So Against Variant In South Africa](#)
 - [Early Data Shows Striking Racial Disparities In Who's Getting The COVID-19 Vaccine](#)
 - ['Just Cruel!': Digital Race For COVID-19 Vaccines Leaves Many Seniors Behind](#)
 - [CDC Issues Sweeping New Mask Mandate For U.S. Travelers; Extends Eviction Moratorium](#)
 - [U.S. Cuts \\$231 Million Deal To Provide 15-Minute COVID-19 At-Home Tests](#)
- **The Hill**
 - [CDC reports 16 states have used less than half of their distributed vaccine doses](#)
- **Politico**
 - [Biden administration to begin shipping vaccine doses directly to pharmacies](#)
 - [France, Sweden, Poland: Oxford/AstraZeneca vaccine not for elderly](#)
 - [Moderna making booster shot to fight Covid-19 variants](#)
 - [Fauci: U.K. coronavirus variant leads to worse infections](#)
- **The Atlantic**
 - [What's the Use of a Pretty Good Vaccine?](#)
 - [Vaccinated People Are Going to Hug Each Other](#)
 - [The Vaccine Line Is Illogical](#)





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- *The Washington Post*
 - [Biden administration seeks to buy 200 million more vaccine doses to be delivered through the summer](#)
 - [Essential workers get lost in the vaccine scrum as states prioritize the elderly](#)
 - [Many who have received the coronavirus vaccine wonder: What can I safely do?](#)
 - [First U.S. case of highly transmissible Brazil coronavirus variant identified in Minnesota](#)
 - [Coronavirus variant first seen in South Africa identified in South Carolina](#)
 - [The Health 202: CDC-backed research finds schools aren't big coronavirus spreaders](#)
 - [Time to double or upgrade masks as coronavirus variants emerge, experts say](#)
- *CNN*
 - [Washington state hospital apologizes after inviting donors to sign up for Covid-19 vaccine](#)
- *The Oregonian*
 - [Chick-fil-A manager solves South Carolina COVID vaccine drive-thru backlog](#)
- *ABC News*
 - [Vaccine rollout 'is not rocket science': West Virginia Gov. Jim Justice](#)
 - ['It means hope': 1,100 low-income seniors, caregivers get COVID-19 vaccine in East Palo Alto](#)
- *The Economist*
 - [Why France's vaccination roll-out has been so slow](#)
- *The New Yorker*
 - [The Sputnik V Vaccine and Russia's Race to Immunity](#)
- *Reading Eagle*
 - [Reliance on technology for COVID vaccine appointments poses challenges for some](#)
- *The Wall Street Journal*
 - [New Playbook for Covid-19 Protection Emerges After Year of Study, Missteps](#)
 - [Hunt for Covid-19 Variants Looks to Ramp Up in New York Labs](#)
- *Bloomberg*
 - [U.S. Falters in Testing to Detect Dangerous Covid Mutations](#)
 - [New NIH Program to Speed Vaccine, Antibody Upgrades to Variants](#)
- *PBS*
 - [Vaccine ramp-up squeezes COVID testing and tracing](#)
- *UK.gov Press Release*
 - [Surge testing to be deployed to monitor and suppress spread of COVID-19 variant](#)
- *AP News*
 - [AP Analysis: Racial disparity seen in US vaccination drive](#)
 - [Studies extend hopes for antibody drugs against COVID-19](#)
- *CISION*
 - [Regeneron Reports Positive Interim Data with REGEN-COV™ Antibody Cocktail used as Passive Vaccine to Prevent COVID-19](#)
- *WHO News*
 - [New COVID-19 variants fuelling Africa's second wave](#)
- *Reuters*
 - [Over half in New Delhi may have had COVID, government survey suggests](#)
 - [Israel extends lockdown, sees delay in COVID-19 turnaround](#)
 - [U.S. CDC sees lower rates of allergic reaction after Pfizer vaccine](#)





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- *Science Speaks*
 - [Nosocomial COVID spread by variants: A Berlin hospital stops admissions and puts staff under “shuttle quarantine”](#)
 - [P.1 variant in Manaus, Brazil linked with COVID resurgence now despite reportedly crossing “theoretical herd immunity threshold” in October](#)
 - [South Africa COVID vaccine results cause Novavax to begin work immediately on “a booster and/or combination bivalent vaccine”](#)
- *JAMA News*
 - [Drug-Resistant Bacteria Outbreak Linked to COVID-19 Patient Surge](#)
- *BMJ News*
 - [Covid-19: Sore throat, fatigue, and myalgia are more common with new UK variant](#)
- *NIH News Releases*
 - [NIH launches database to track neurological symptoms associated with COVID-19](#)
- *Medscape*
 - ['Category 5' COVID Hurricane Approaches, Expert Says](#)
 - [EMA Recommends Oxford/AstraZeneca Vaccine](#)
- *Medpage Today*
 - [How Much Protection Do Babies Get From Mom's COVID Antibodies?](#)
 - [ACIP: No Rise in Anaphylaxis Rates After COVID Vax](#)
- *Los Angeles Times*
 - [Blue Shield will oversee California’s troubled COVID-19 vaccination effort.](#)
 - [California’s early vaccine rollout was chaotic and filled with problems. Here’s what went wrong.](#)
 - [Growing racial inequities in L.A. County vaccine rollout raise alarms.](#)
 - [How the coronavirus flooded California and swamped L.A. \(great animated graphs\)](#)
 - [California needs more COVID-19 vaccine, but areas like L.A. are actually getting less.](#)
- *KQED*
 - [Anti-Vaxxers Shut Down L.A.'s Largest COVID Vaccination Site](#)
 - [Kaiser Cancels 5,000 Vaccine Appointments in Santa Clara County](#)
 - [California's COVID-19 Vaccine Plans: The Tension Between Speed and Equity](#)
 - [California’s COVID-19 Vaccine Information Void](#)
- *Mercury News*
 - [In coronavirus-ravaged East San Jose, here’s what they are doing to vaccinate the hard-to-reach](#)
- *San Francisco Chronicle*
 - [Oakland Coliseum to become mass-vaccination site - goal is 6,000 doses a day starting Feb. 16](#)
 - [California's age-based vaccine system angers people with disabilities](#)
 - [California says equity is vital for vaccine distribution. But data is almost nonexistent](#)
 - [Signs of hope emerge, with vaccines rising and infections falling in California](#)
 - [Charting Bay Area's 'surge on top of a surge': How crisis unfolded, and when the next one could come](#)
 - [California faces 'real' chance of another surge as coronavirus variants spread](#)
 - [With COVID risk elevated in Bay Area, should you upgrade or double your mask?](#)
 - [U.K., Brazil coronavirus variants found in Bay Area](#)





SAN MATEO COUNTY HEALTH

PUBLIC HEALTH, POLICY & PLANNING

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EPIDEMIOLOGY UPDATES

- **CDC COVID Data Tracker**
 - [CDC COVID-19 Forecasts: Deaths](#)
 - [United States COVID-19 Cases and Deaths by State](#)
 - [CDC COVID Data Tracker: Vaccinations](#)
 - **NEW** - [CDC US COVID-19 Cases Caused by Variants](#)
- **US Leads the World in Confirmed COVID-19 Cases** per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](#)
- [Johns Hopkins COVID-19 in the USA](#) – daily summary of key data on COVID-19 in the U.S.
- **California COVID-19 by the numbers** are available on the [CDPH Website](#) and the [NYT Map and Table](#) (includes data by county)
 - **California [COVID-19 Statewide Update](#) as of February 4, 2021**
- [San Mateo County COVID-19 Dashboard](#)
- [Santa Clara County COVID-19 Dashboard](#)

ADDITIONAL COVID-19 RESOURCES

- [San Mateo County COVID-19 Guidance and Resources for Clinicians and Facilities – COVID-19 Digests](#)
- [Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties](#)
- [California COVID-19 Data and Tools](#)
- [CDPH COVID-19 Assessment and Modeling Tool](#)
- [California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards](#)
- [CDC Interactive Serology Dashboard for Commercial Laboratory Surveys](#)
- [HHS Coronavirus Data Hub](#)
- [COVID-19 Nursing Home Data](#)
- [CDC COVID-19 Forecasts: Deaths](#)
- [Children and COVID-19: State-Level Data Report](#)

