



## COVID-19 Digest Issue 43

February 19, 2021

### CLINICAL PEARL

- [A recent Morbidity and Mortality Weekly Report \(MMWR\)](#) from the CDC has shown that maximizing fit for cloth and medical procedure masks improves performance and reduces SARS-CoV-2 transmission and exposure. **Universal masking is one of the prevention strategies recommended by CDC to slow the spread of SARS-CoV-2**, the virus that causes coronavirus disease 2019 (COVID-19). **Masks substantially reduce exhaled respiratory droplets and aerosols from infected wearers and reduce exposure of uninfected wearers to these particles.**  
**Cloth masks and medical procedure masks fit more loosely than do respirators (e.g., N95 facepieces). The effectiveness of cloth and medical procedure masks can be improved by ensuring that they are well fitted to the contours of the face to prevent leakage of air around the masks' edges.** In January 2021, CDC conducted experimental simulations to assess the extent to which two modifications to medical procedure masks, 1) **wearing a cloth mask over a medical procedure mask (double masking)** and 2) **knotted the ear loops of a medical procedure mask where they attach to the mask's edges and then tucking in and flattening the extra material close to the face (knotted and tucked masks)**, could improve the fit of these masks and reduce the receiver's exposure to an aerosol of simulated respiratory droplet particles of the size considered most important for transmitting SARS-CoV-2. **The receiver's exposure was maximally reduced (>95%) when the source and receiver were fitted with modified medical procedure masks.** These laboratory-based experiments highlight the importance of good fit to optimize mask performance. **Until vaccine-induced population immunity is achieved, universal masking is a highly effective means to slow the spread of SARS-CoV-2 when combined with other protective measures, such as good hand hygiene, physical distancing, and avoiding crowds and poorly ventilated indoor spaces.**

### PUBLIC HEALTH UPDATES

- WHO: [Interim recommendations for use of the AZD1222 \(ChAdOx1-S \(recombinant\)\) vaccine against COVID-19 developed by Oxford University and AstraZeneca](#)
- CDC
  - [Interim Clinical Considerations for Use of mRNA COVID-19 Vaccines Currently Authorized in the United States](#) with updated quarantine recommendations for vaccinated persons, clarification on contraindications and precautions, updated information on delayed, local injection-site reactions after the first mRNA vaccine dose, additional information and updated recommendations for testing for TB infection, and new recommendations for preventing, reporting, and managing mRNA COVID-19 vaccine administration errors (Appendix A)
  - [Improve the Fit and Filtration of Your Mask to Reduce the Spread of COVID-19](#) by wearing a cloth mask on top of a medical procedure mask, knotting and tucking of a medical procedure mask, using a mask fitter and brace in addition to a mask or using masks that have a nose wire
  - [K-12 School Operational Strategy](#)
  - [Transmission of SARS-CoV-2 in K-12 schools](#)
  - [Science Agenda for COVID-19](#)

### GUIDANCE/GUIDELINE

- CDPH [Updated COVID-19 Vaccine Allocation Guidelines](#)





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### RESOURCES

- CDC [Public Health Genomics and Precision Health Knowledge Base \(v7.1\)](#)  
Vaccines and COVID-19
- JAMA Network [Coronavirus Update With CDC Director Rochelle Walensky](#)
- CDC/IDSA [COVID-19 Clinician Call: New Monoclonal Antibody EUA, New Data on Treatment Dispensing and More Vaccine Q&A](#)
- APHA and National Academy of Medicine [COVID-19 Conversations](#) Webinar series
- Collaborative COVID-19 Literature Review Synopses (CoCOLRS) Database [Digest Summaries](#)
- BMJ Journal
  - [Coronavirus \(covid-19\) Hub](#)
  - [BMJ Best Practice](#)

### ACADEMIC/RESEARCH PAPERS

- *Nature*
  - [Neutralization of SARS-CoV-2 spike 69/70 deletion, E484K and N501Y variants by BNT162b2 vaccine-elicited sera](#)
  - [SARS-CoV-2 D614G spike mutation increases entry efficiency with enhanced ACE2-binding affinity](#)
  - [Evidence for SARS-CoV-2 related coronaviruses circulating in bats and pangolins in Southeast Asia](#)
  - [Potential intestinal infection and faecal–oral transmission of SARS-CoV-2](#)
- *New England Journal of Medicine*
  - [Serum Neutralizing Activity Elicited by mRNA-1273 Vaccine — Preliminary Report](#)
  - [Neutralizing Activity of BNT162b2-Elicited Serum — Preliminary Report](#)
  - [Convalescent Plasma Antibody Levels and the Risk of Death from Covid-19](#)
- *Research Square*
  - [Vaccine-induced immunity provides more robust heterotypic immunity than natural infection to emerging SARS-CoV-2 variants of concern.](#)
- *Lancet*
  - [Safety, tolerability, and immunogenicity of an inactivated SARS-CoV-2 vaccine \(CoronaVac\) in healthy adults aged 60 years and older: a randomised, double-blind, placebo-controlled, phase 1/2 clinical trial](#)
  - [Transmission of COVID-19 in 282 clusters in Catalonia, Spain: a cohort study](#)
- *JAMA*
  - [SARS-CoV-2 Variants of Concern in the United States—Challenges and Opportunities](#)
  - [Reports of Anaphylaxis After Receipt of mRNA COVID-19 Vaccines in the US—December 14, 2020–January 18, 2021](#)
  - [COVID-19 Vaccination in Pregnant and Lactating Women](#)
  - [The US Regulatory System and COVID-19 Vaccines - The Importance of a Strong and Capable FDA](#)
  - [Effect of a Single High Dose of Vitamin D3 on Hospital Length of Stay in Patients With Moderate to Severe COVID-19 - A Randomized Clinical Trial](#)
  - [Vitamin D3 to Treat COVID-19 - Different Disease, Same Answer](#)
  - [Discriminant Accuracy of the SOFA Score for Determining the Probable Mortality of Patients With COVID-19 Pneumonia Requiring Mechanical Ventilation](#)
  - [Assessing Brain Capillaries in Coronavirus Disease 2019](#)
  - [Posttraumatic Stress Disorder in Patients After Severe COVID-19 Infection](#)





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- *medRxiv*
  - [An early assessment of the epidemiological effects of SARS-CoV-2 variants of concern in Germany](#)
  - [Initial real world evidence for lower viral load of individuals who have been vaccinated by BNT162b2](#)
  - [COVID-19: Rapid Antigen detection for SARS-CoV-2 by lateral flow assay: a national systematic evaluation for mass-testing](#)
- *Leukemia and Lymphoma*
  - [Haematological malignancy and nosocomial transmission are associated with an increased risk of death from COVID-19: results of a multi-center UK cohort](#)
- *Endocrine Practice*
  - [Hyperglycemia is Associated With Increased Mortality in Critically Ill Patients With COVID-19](#)
- *CHEST*
  - [Should Antipyretics be used to Relieve Acute Adverse Events Related to COVID-19 Vaccines?](#)
- *BMJ Journals*
  - [A new positive SARS-CoV-2 test months after severe COVID-19 illness: reinfection or intermittent viral shedding?](#)
  - [Covid-19: How the lessons of HIV can help end the pandemic](#)
  - [Covid-19: Is Manaus the final nail in the coffin for natural herd immunity?](#)
  - [Early initiation of prophylactic anticoagulation for prevention of coronavirus disease 2019 mortality in patients admitted to hospital in the United States: cohort study](#)
- *Cell Biology International*
  - [Genetic and epigenetic factors associated with increased severity of Covid-19](#)
- *Infection, Genetics and Evolution*
  - [Distinguishing SARS-CoV-2 bonafide re-infection from pre-existing minor variant reactivation](#)
- *Med (N Y)*
  - [Persistence of SARS-CoV-2 specific B- and T-cell responses in convalescent COVID-19 patients 6-8 months after the infection](#)
- *Journal of Community Hospital Internal Medicine Perspectives*
  - [Prevalence of SARS-CoV-2 among community members presenting for testing in Peoria, Illinois from 21 April to 15 May 2020](#)
- *The Journal of Infectious Diseases*
  - [Viral load of SARS-CoV-2 in adults during the first and second wave of COVID-19 pandemic in Houston, TX: the potential of the super-spreader](#)
- *Clinical Infectious Diseases*
  - [Presymptomatic Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 Among Residents and Staff at a Skilled Nursing Facility: Results of Real-time Polymerase Chain Reaction and Serologic Testing](#)
  - [Nosocomial Transmission of Coronavirus Disease 2019: A Retrospective Study of 66 Hospital-acquired Cases in a London Teaching Hospital](#)
  - [Bioaerosol sampling for SARS-CoV-2 in a referral center with critically ill COVID-19 patients March-May 2020](#)
  - [Longitudinal Profile of Laboratory Parameters and Their Application in the Prediction for Fatal Outcome Among Patients Infected With SARS-CoV-2: A Retrospective Cohort Study](#)
  - [Social Distancing Alters the Clinical Course of COVID-19 in Young Adults: A Comparative Cohort Study](#)





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- [Risk of Coronavirus Disease 2019 Transmission in Train Passengers: an Epidemiological and Modeling Study](#)
- [Spatiotemporal Characteristics of the COVID-19 Epidemic in the United States](#)
- [Development and Validation of a Nomogram for Assessing Survival in Patients With COVID-19 Pneumonia](#)
- [Loss of Taste and Smell as Distinguishing Symptoms of Coronavirus Disease 2019](#)
- *Emerging Infectious Diseases*
  - [Novel SARS-CoV-2 Variant Identified in Travelers from Brazil to Japan](#)
  - [Imported SARS-COV-2 Variant P.1 Detected in Traveler Returning from Brazil to Italy](#)
  - [Upper Respiratory Infections in Schools and Childcare Centers Reopening after COVID-19 Dismissals, Hong Kong](#)
  - [Childcare Exposure to Severe Acute Respiratory Syndrome Coronavirus 2 for 4-Year-Old Presymptomatic Child, South Korea](#)
  - [Characteristics of SARS-CoV-2 Transmission among Meat Processing Workers in Nebraska, USA, and Effectiveness of Risk Mitigation Measures](#)
  - [Difficulties in Differentiating Coronaviruses from Subcellular Structures in Human Tissues by Electron Microscopy](#)
  - [Analysis of Asymptomatic and Presymptomatic Transmission in SARS-CoV-2 Outbreak, Germany, 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](#)
  - [Early Transmission Dynamics, Spread, and Genomic Characterization of SARS-CoV-2 in Panama](#)
  - [Prevalence and Time Trend of SARS-CoV-2 Infection in Puducherry, India, August–October 2020](#)
  - [Effects of Social Distancing Measures during the First Epidemic Wave of Severe Acute Respiratory Syndrome Infection, Greece](#)
  - [Universal Admission Screening for SARS-CoV-2 Infections among Hospitalized Patients, Switzerland, 2020](#)
  - [Estimating Transmission Parameters for COVID-19 Clusters by Using Symptom Onset Data, Singapore, January–April 2020](#)
- *Virology*
  - [The G614 pandemic SARS-CoV-2 variant is not more pathogenic than the original D614 form in adult Syrian hamsters](#)
- *Pathogens and Global Health*
  - [A study investigating the knowledge and responses of Italian medical students to the COVID-19 pandemic](#)

## MMWR

- [Maximizing Fit for Cloth and Medical Procedure Masks to Improve Performance and Reduce SARS-CoV-2 Transmission and Exposure, 2021](#)
- [First Identified Cases of SARS-CoV-2 Variant B.1.1.7 in Minnesota — December 2020–January 2021](#)
- [Detection of B.1.351 SARS-CoV-2 Variant Strain — Zambia, December 2020](#)
- [Trends in Use of Telehealth Among Health Centers During the COVID-19 Pandemic — United States, June 26–November 6, 2020](#)
- [Decline in Receipt of Vaccines by Medicare Beneficiaries During the COVID-19 Pandemic — United States, 2020](#)





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- [Required and Voluntary Occupational Use of Hazard Controls for COVID-19 Prevention in Non-Health Care Workplaces — United States, June 2020](#)

### HOT OFF THE (LAY) PRESS

- *NBC News*
  - [CVS Opens Booking System for COVID-19 Vaccines. Here's What to Know](#)
  - [Face mask guidelines: The first ever set of standards is here](#)
- *BMJ News*
  - [Covid-19: Are cloth masks still effective? And other questions answered](#)
  - [What makes new variants of SARS-CoV-2 concerning is not where they come from, but the mutations they contain](#)
- *New York Times*
  - [WHO Panel Recommends AstraZeneca Vaccine Despite Variant Concerns](#)
  - [The White House says vaccine supply is going up to 13.5 million doses a week](#)
  - [With More Vaccines Secured, Biden Warns of Hurdles to Come](#)
  - [Covid Vaccines for Kids Are Coming, but Not for Many Months](#)
  - [Testing vaccines in teenagers](#)
  - [The U.S. vaccine rollout is improving in every state](#)
  - [Debatable: Is this the fastest we can vaccinate people?](#)
  - [The Vaccine Had to Be Used. He Used It. He Was Fired.](#)
  - [Los Angeles temporarily shuts five vaccination sites over shortages](#)
  - [7 Myths About the Coronavirus Vaccine](#)
  - [A Few Covid Vaccine Recipients Developed a Rare Blood Disorder](#)
  - [Three Million Shots a Day](#)
  - [C.D.C. Draws Up a Blueprint for Reopening Schools](#)
  - [We Asked 175 Pediatric Disease Experts if It Was Safe Enough to Open School](#)
  - [The variant first detected in Britain is most likely deadlier than the original virus variants, scientists say](#)
  - [7 Virus Variants Found in U.S. Carrying the Same Mutation](#)
  - [Covid-Linked Syndrome in Children Is Growing and Cases Are More Severe](#)
  - [F.D.A. officials say their 'flawed' policy led to a flood of unreliable antibody tests early in the pandemic](#)
  - [A Year of Hardship, Helped and Hindered by Washington](#)
  - [U.S. life expectancy plunged in 2020, with Black Americans acutely affected](#)
  - [Scientists Are Trying to Spot New Viruses Before They Cause Pandemics](#)
  - [Piecing Together the Next Pandemic](#)
- *Nature News*
  - [J&J's one-shot COVID vaccine offers hope for faster protection](#)
  - [Vaccines are curbing COVID: Data from Israel show drop in infections](#)
  - [COVID vaccines and safety: what the research says](#)
  - [The coronavirus is here to stay — here's what that means](#)
  - ['Major stones unturned': COVID origin search must continue after WHO report, say scientists](#)
  - [Rapid coronavirus tests: a guide for the perplexed](#)
  - [COVID-19 rarely spreads through surfaces. So why are we still deep cleaning?](#)
- *Science News*
  - [One-dose COVID-19 vaccine offers solid protection against severe disease](#)
  - [Novavax vaccine delivers 89% efficacy against COVID-19 in U.K. — but is less potent in South Africa](#)





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- [South Africa suspends use of AstraZeneca's COVID-19 vaccine after it fails to clearly stop virus variant](#)
- [U.S. rushes to fill void in viral sequencing as worrisome coronavirus variants spread](#)
- [Pandemic hit academic mothers especially hard, new data confirm](#)
- [How soon will COVID-19 vaccines return life to normal?](#)
- *STAT News*
  - [Comparing the Covid-19 vaccines developed by Pfizer, Moderna, and Johnson & Johnson](#)
  - [In lab experiment, Pfizer-BioNTech vaccine less potent against coronavirus variant](#)
  - [Covid-19 vaccination rates follow the money in states with the biggest wealth gaps, analysis shows](#)
  - [The myth of 'good' and 'bad' Covid vaccines: Why false perceptions overlook facts, and could breed resentment](#)
  - [The good and the \(potentially\) bad: What scientists know about variants and Covid-19 vaccines](#)
  - [Covid-19 cases are falling in the U.S. It could be a calm before a variant-driven storm](#)
  - [A Q&A with WHO's emergencies chief on Covid-19, why he's hopeful, and when normalcy might return](#)
- *CBS News*
  - [Oxford University starts COVID-19 vaccine trial in children ages 6 to 17](#)
  - [COVID-19 vaccinations at California hospital lead to 95% decline in sick employees](#)
- *Business Insider*
  - [New CDC advice says people are exempt from some COVID-19 quarantine rules after a 2nd vaccine dose](#)
- *NPR*
  - [How Herd Immunity Works — And What Stands In Its Way](#)
  - [Vaccinating Homeless Patients Against COVID-19: 'All Bets Are Off'](#)
  - [In Tuskegee, Painful History Shadows Efforts To Vaccinate African Americans](#)
  - [White House Announces Expanded COVID-19 Testing, Manufacturing And Virus Sequencing](#)
  - [Music Therapy Brings Solace To COVID-19 Patients And Healers](#)
- *JAMA Medical News and Perspectives*
  - [Researchers Investigate What COVID-19 Does to the Heart](#)
- *Medpage Today*
  - [COVID-19 Response Team Warns of Rise in Variants](#)
  - [Biden Talks School Reopening, Vaccine Availability](#)
- *California Medical Association News*
  - [CMA urges regulators to investigate payors impeding access to rapid COVID-19 tests](#)
  - [Californians under 65 with severe health conditions can be vaccinated beginning March 15](#)
- *Los Angeles Times*
  - [Data issues thwart California's COVID-19 vaccine distribution efforts.](#)
  - [Blue Shield vows to dramatically speed up California vaccine distribution with new plan.](#)
- *San Francisco Chronicle*
  - [Why Bay Area experts are praising CDC guideline halting COVID quarantines for vaccinated people](#)
  - [Why does California's health care giant Kaiser lag in getting vaccines to seniors?](#)
  - [San Francisco will pause vaccinations at Moscone Center, City College as Supplies Run Out](#)
  - ['The problem is tomorrow's variants': Renowned Bay Area epidemiologist predicts prolonged pandemic](#)
  - [South Africa coronavirus variant that reduces vaccine efficacy found in two Bay Area counties](#)







SAN MATEO COUNTY HEALTH

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- [The CDC now says you should double mask. Here's the big data point behind the new guidance](#)
- [California's positivity rate drops sharply, a promising indicator for reopening](#)
- [New maps showing which California school districts are open reflect big divide](#)

#### 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 19, 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](#)

