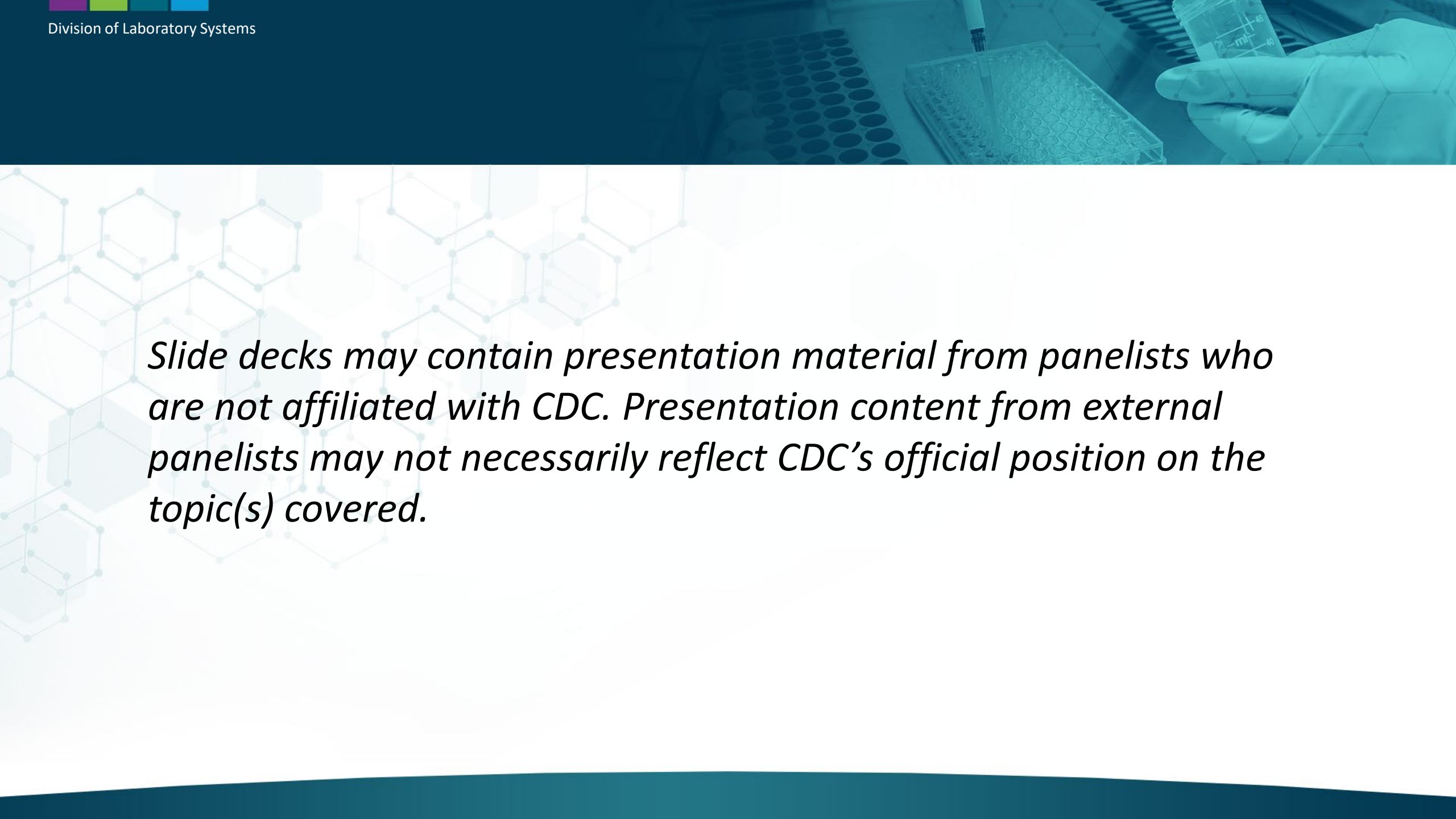




Tips for More Accessible, Inclusive Trainings – Health Literacy





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About the Speaker



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Geisinger Medical Laboratories

To see full speaker biographies, visit <https://www.cdc.gov/labtraining/onelab/onelab-summit-2022.html>



Tips for More Accessible, Inclusive Trainings

- Health literacy

Geisinger

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System Medical Lab Director, Chemistry, Toxicology
and Point-of-Care Testing
Clinical Associate Professor
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4/19/2022

Disclosure

- None

**What does Inclusive mean?
Why Health Literacy?**

Training on how to perform testing

- Testing personnel
 - Medical technologists
 - Point-of-Care testing users
 - If managed by laboratory
 - What about others that are not managed by a clinical laboratory professional?
 - And what about the newer testing sites like pharmacy sites or pop-up testing trucks / tents?
- How about people who use the tests?
 - Clinicians?
 - Laboratory Directors?
- How do we know everyone can perform At-home POCT correctly?
 - sample collection?

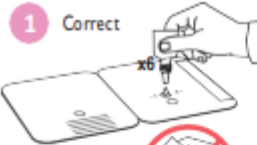

Clear to laboratory professionals isn't the same as clear to the user

Abbott BinaxNow COVID-19 Ag Card

Can one perform the drop correctly?

Part 1 - Sample Test Procedure



Patient Samples require 6 drops of Extraction Reagent. Hold Extraction Reagent bottle vertically. Hovering 1/2 inch above the **TOP HOLE**, slowly add 6 DROPS to the **TOP HOLE** of the swab well. **DO NOT** touch the card with the dropper tip while dispensing.

1 Correct  **Wrong** 

2 Insert sample or control swab into **BOTTOM HOLE** and firmly push upwards so that the swab tip is visible in the **TOP HOLE**.

3 Rotate (twirl) swab shaft 3 times **CLOCKWISE** (to the right). Do not remove swab.

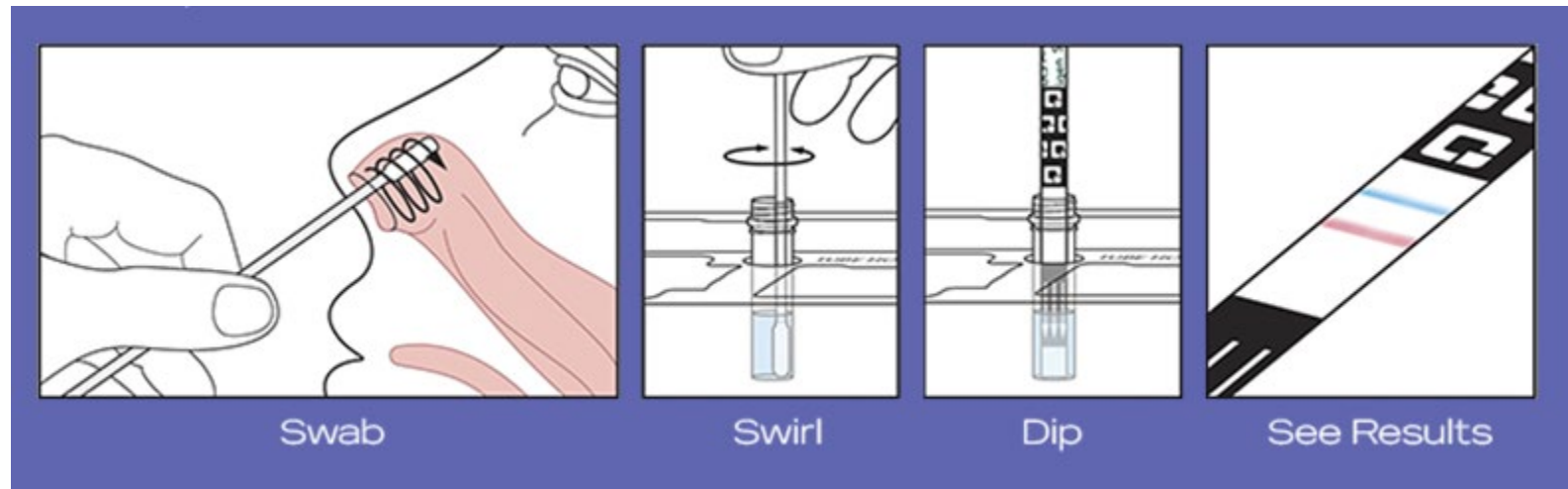
4 Peel off adhesive liner from the right edge of the test card. Close and securely seal the card. Read result in the window 15 minutes after dosing the card. In order to ensure proper test performance, it is important to read the result promptly at 15 minutes, and not before. Results should not be read after 30 minutes.

Used test cards should be discarded as Biohazard waste according to Federal, State and local regulatory requirements.

Clear to laboratory professionals isn't the same as clear to the user

Quidel QuickVue At-Home COVID-19 Test



Is “swirling” the same as mixing vigorously?

Are waived tests easy enough?

[Waived Tests | CDC](#)

All facilities in the United States that perform laboratory testing on human specimens for health assessment or the diagnosis, prevention, or treatment of disease are regulated under the Clinical Laboratory Improvement Amendments of 1988 (CLIA). Waived tests include test systems cleared by the FDA for home use and those tests approved for waiver under the CLIA criteria. Although CLIA requires that waived tests must be simple and have a low risk for erroneous results, this does not mean that waived tests are completely error-proof. Errors can occur anywhere in the testing process, particularly when the manufacturer's instructions are not followed and when testing personnel are not familiar with all aspects of the test system.

Some waived tests have potential for serious health impacts if performed incorrectly. For example, results from waived tests can be used to adjust medication dosages, such as prothrombin time testing in patients undergoing anticoagulant therapy and glucose monitoring in diabetics. In addition, erroneous results from diagnostic tests, such as those for human immunodeficiency virus (HIV) antibody, can have unintended consequences. To decrease the risk of erroneous results, the test needs to be performed correctly, by trained personnel and in an environment where good laboratory practices are followed.

[Home](#) > COVID-19 testing

COVID-19 testing

Looking for COVID-19 test results? [Sign in](#) to view them on your health dashboard.

More than 4,800 testing locations. No cost¹ to you.

Get accurate test results for COVID-19, including the Delta variant. You'll be shown test types and turnaround times when you choose a location.



Testing for travel?

Lab test (PCR/ NAAT)

Results within 1-2 days.² This test is accepted for most travel.

Rapid-result (PCR)

Results within hours.³ The test is accepted for most travel. Limited availability



Feeling sick?

Lab test + optional flu test⁴

One swab, two tests for eligible individuals. Results with in 1-2 days.²

Rapid-result (antigen)

Results within hours.³

Get tested

Tests are available to eligible individuals 3 and older in select states. Tests vary by location.

Where do you live?

ZIP code, or city and state

Schedule a test

If you have a voucher, or if your employer or university is sponsoring a CVS testing program and paying for your test, [schedule on a separate page](#).



Free¹ Drive-Thru COVID-19 Testing for Ages 3+



Expert insights



FAQ

What does this mean to the patients?

- Greater access
- Convenience

Personal experience...

- Sample collection issue
- Test procedure was not followed
- Poor infection control
- ...

Access to poor and inaccurate testing service is not better than NO ACCESS!

Are waived tests easy enough?

[Waived Tests | CDC](#)

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Good laboratory practices

There is a need to extend our basic laboratory training to non-laboratorians especially from the POCT perspective (both at-home and the non-laboratory professional setting).

- Laboratory Safety
- Basic Infection Control (Clean vs Dirty Area; Device cleaning)
- Inventory management (receipt and expiration date)
- Basic Laboratory Technique
 - Using a dropper / disposable pipet
 - Mixing sample
 - Reading test result...

1 in 3 people misinterprets At-Home COVID test

With a high pretest probability (e.g. recent contact with infected individuals, new onset of COVID-like symptoms) and a negative at-home COVID test result

- 33% of people failed to quarantine using standard authorized instructions.

+ YOUR TEST IS POSITIVE FOR COVID-19

A positive test result indicates that you very likely currently have COVID-19 disease. COVID-19 is a viral illness that causes multiple symptoms including fever, a cough, sore throat and shortness of breath (refer to COVID-19 information section).

What you need to do:

1. Consult a healthcare professional as soon as possible. Please tell them that you tested positive for COVID-19.

Provide your healthcare professional with:

- Your Test Result Record (sent to you via email and in your COVID-19 Home Test App).
- The Product Overview for Healthcare Professionals (in your COVID-19 Home Test App).
- The Fact Sheet for Healthcare Professionals (in your COVID-19 Home Test App).

If you have no symptoms, particularly if you live in an area with low numbers of COVID-19 infections and have had no exposure to anyone diagnosed with COVID-19, additional molecular testing to confirm your result may be required. Please advise the healthcare professional you have tested positive and have no symptoms. See FAQ 'Can I have a false positive test result' on our website <http://ellumecovidtest.com/FAQ>.

2. You should self-isolate at home as per CDC recommendations to stop spreading the virus to others. Please consult the CDC recommendations regarding self-isolation www.cdc.gov/coronavirus.

Press the YOUR RESULT & WHAT IT MEANS button on the result screen in the App to find out more about your result and when you can be with others again.

- YOUR TEST IS NEGATIVE FOR COVID-19

A negative test result indicates that you are unlikely to currently have COVID-19 disease. A negative test result means that proteins, small parts of the virus that causes COVID-19, were not found in your sample. However, you may have had COVID-19 previously. To confirm a previous infection, you will need to take a different type of test (antibody test).

What you need to do:

Please consult a healthcare professional if you develop symptoms, symptoms persist or become more severe.

Negative results, particularly if you have no symptoms of COVID-19, may require additional molecular testing to confirm your result. Please see FAQ 'Can I have a false negative test result' on our website <http://ellumecovidtest.com/FAQ>.

So, what is making you sick? There are many other viruses that cause similar symptoms to COVID-19 and these may be the cause of your symptoms. Regardless of the test result, it is important that while you are sick you should practice social distancing and good hygiene and should not attend work.

If you develop symptoms or your symptoms persist or become more severe, if you are concerned about your health or you develop one of the emergency warning signs (see COVID-19 information section) then you should seek medical attention immediately.

Improved compliance when enhanced interpretation guide is used

- Only 14% of people failed to quarantine

People can be taught.

Easy to read guide is key!

If your test result was positive: assume you have COVID-19.

> Contact your health care provider immediately > Stay at home > Avoid contact with others until you have further instructions from your doctor

If your test result was negative...

No test is perfect. A negative result means there was no evidence of the COVID-19 virus in your sample, but does not guarantee you are free of the virus. If the amount of virus in your body is low, the test might not detect it. The **guide below** will help you know what to do now to keep yourself and others safe.

Interpreting your negative test result:

<p style="text-align: center;">IF</p> <p style="text-align: center;">⌵</p> <p> You've had <u>COVID-19 symptoms</u> within the last ten days.</p> <p style="text-align: center;">AND</p> <p> You've had <u>close contact</u> with someone known to have COVID-19 in the last two weeks.</p>	<p style="text-align: center;">IF</p> <p style="text-align: center;">⌵</p> <p> You've had <u>COVID-19 symptoms</u> within the last ten days.</p>	<p style="text-align: center;">IF</p> <p style="text-align: center;">⌵</p> <p> You've had <u>close contact</u> with someone known to have COVID-19 in the last two weeks.</p>	<p style="text-align: center;">IF</p> <p style="text-align: center;">⌵</p> <p> You have <u>NOT</u> had any <u>COVID-19 symptoms</u> in the last ten days.</p> <p style="text-align: center;">AND</p> <p> You have <u>NOT</u> had <u>close contact</u> with someone with COVID-19 in the last two weeks.</p>
<p style="text-align: center;">THEN</p> <p style="text-align: center;">⌵</p> <p style="text-align: center;">Assume you have COVID-19</p> <p><u>Contact your doctor immediately.</u></p> <ul style="list-style-type: none"> - Stay at home - Avoid contact with others (including in your own home) until you have further instructions from your doctor. 	<p style="text-align: center;">THEN</p> <p style="text-align: center;">⌵</p> <p style="text-align: center;">You could still have COVID-19</p> <p><u>Contact your health care provider.</u></p> <ul style="list-style-type: none"> - Stay at home - Avoid contact with others (including in your own home) for at least ten days since your symptoms started <p style="text-align: center;">and</p> <p>you have had NO fever for at least twenty-four hours</p> <p style="text-align: center;">and</p> <p>your symptoms are improving.</p>		<p style="text-align: center;">THEN</p> <p style="text-align: center;">⌵</p> <p style="text-align: center;">You could still have COVID-19</p> <p><u>Contact your doctor about your results.</u></p> <ul style="list-style-type: none"> - Stay at home - Avoid contact with others (including in your own home) for ten days after your last contact with a COVID-19 positive person.
	<p style="text-align: center;">THEN</p> <p style="text-align: center;">⌵</p> <p style="text-align: center;">It is unlikely you have COVID-19 now</p> <ul style="list-style-type: none"> - Make sure you STAY SAFE (see below) 		

KEY TERMS

<u>Possible COVID-19 Symptoms</u>	- diarrhea	<u>Close contact</u> is sustained contact for longer than ten minutes with a person while standing closer than six feet apart.	Protect yourself and the vulnerable members of your community
- loss of smell	- sore throat		> Wear a mask around anyone not in your household, especially indoors
- severe cough	- runny nose		> Stay at least 6 feet apart from others
- severe fatigue	- difficulty breathing		> Avoid crowds
- loss of appetite	- muscle / body aches		> Wash your hands often
- fever above 100.4°F or chills	- headache		
- nausea or vomiting			

No matter your result, everyone should STAY SAFE

Clear testing / interpretation guideline

Is it written in ways that general public can understand in one pass? Is it evidence based (to the best ability)?

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Health Literacy empowers people to make positive choices on their health

The U.S. government's Health People 2030 initiative provides the following definition.

- **Personal health literacy** is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.
- **Organizational health literacy** is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.

www.cdc.gov/healthliteracy

<https://www.who.int/activities/improving-health-literacy>

Simply speaking:

Individuals – ability to make **well-informed health decisions** based on evidence.

Organizations / Scientists / Medical Professionals – ability to present complicated scientific and medical information in common language so others can be informed. We need to do **smarter marketing**.

Digital disinformation

VACCINE RESEARCH



ANTI VAX MOM RESEARCH



Promote reliable resources for laboratory testing

About 2,690,000,000 results (0.70 seconds)

https://www.everlywell.com > sleep-and-stress-panel

At-Home Cortisol Levels Test Kit - Sleep & Stress Test

The Everlywell **Sleep & Stress Test** lets you check how your cortisol hormone levels (as well as levels of cortisone and melatonin) change over a 24-hour period- ...

People also ask

- Are at home cortisol tests accurate?
- How do doctors perform a stress test?
- How do I know if I need a stress test?
- What are the symptoms of high cortisol levels?

Feedback

https://store.optum.com > shop > products > everlywell-sle...

EverlyWell Sleep and Stress Test | Optum Store

The EverlyWell **Sleep and Stress** at home **test** kit can help answer questions about your Cortisol, Cortisone, Melatonin, and Creatinine hormone levels ...

https://www.testing.com > Tests

At-Home Stress and Sleep Panel - Testing.com

Nov 9, 2021 — At-home **stress** and **sleep testing** kits measure hormones that can be involved in **sleep** disruptions and the body's **stress** responses.

https://vitagene.com > Products

Sleep & Stress Test - Vitagene

This panel provides an assessment of the hormones which indicate a response to **stress** and those needed for good **sleep**. Melatonin is a hormone produced by ...

https://www.purewow.com > news > everlywell-at-hom...

Everlywell At-Home Stress & Sleep Test Review - PureWow

Jul 30, 2019 — I recently tried the Everlywell at-home **stress** and **sleep** kit to mixed results. Find

EverlyWell Sleep & Stress Test

★★★★★ (54)

Details Reviews Stores

Optum Store \$199.00
EverlyWell Sleep and Stress Test|
1.00 Count
Free shipping

healthynewvibes.com \$249.00
Sleep & Stress Test

→ Compare prices

At-Home Cortisol Levels Test Kit - Sleep & St...
everlywell.com · Manufacturer

Our Sleep and Stress Test measures your critical sleep and stress hormones and is significantly less expensive than most other multi-sample hormo...
MORE ▾

Test Type: Diabetes

→ More details

User reviews + Write a review

4.8 5

But is the test useful? (Test utilization?)

Ancestry DNA Test

Genital and Oral Herpes Test

Allergy Test

Cholesterol Test

COVID-19 Antibody Test

Flu Test

Information is medically reviewed by
board certified laboratory experts.
[Editorial Policy - Testing.com](#)

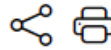
HPV Test

[View All At-Home Tests](#)

Diagnosing Cystic Fibrosis with Sweat Sticker

Eliminating Race from Kidney Function Assessments

At-Home Stress and Sleep Panel



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Also Known As: Home Cortisol Test, Home Melatonin Test

Learn more about...

Sleep Apnea Testing



Medically Reviewed by Expert Board. This article was last modified on November 9, 2021

Test Quick Guide

At-home stress and sleep testing kits measure hormones that can be involved in sleep disruptions and the body's stress responses.

At-home testing most commonly examines **cortisol and cortisone** hormones that increase during stress, as well as **melatonin** a hormone that regulates sleep rhythms. The test requires you to collect saliva or urine samples at several points during the course of the day to monitor your hormone levels over a 24-hour span.

While at-home stress and sleep test kits can provide a snapshot of your hormone levels during one day, they are not able to diagnose sleep disorders or other health conditions. **While widely available, there is limited evidence to show that the results of these tests can be used to improve your health**. It is important to talk with your doctor about any health concerns you have and about any at-home test results.

About the Test

Purpose of the test

The purpose of the test is to supplement a physician's evaluation of sleep disturbances and disruption. The test is designed to measure certain hormones such as melatonin and cortisol.

Purpose of an at-home stress and sleep test

But how do we reach the general public?

Social media / Internet is a double-edged sword...

slido



Which of the following internet platforms do you use?

ⓘ Start presenting to display the poll results on this slide.

Great resources...



3900+ talks to stir your curiosity

Find just the right one

Search talks...

Topics



Languages



Duration



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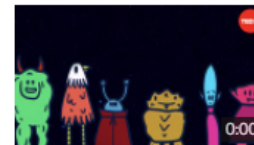
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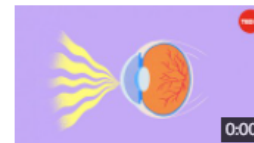
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Could we treat Alzheimer's with light and sound?

Posted Jan 2022

Great resources...

Many YouTube Channels for science and engineering videos featuring experiments, cool demos...

How can we do the same to attract people to learn more about clinical lab testing?

Veritasium
11.6M subscribers

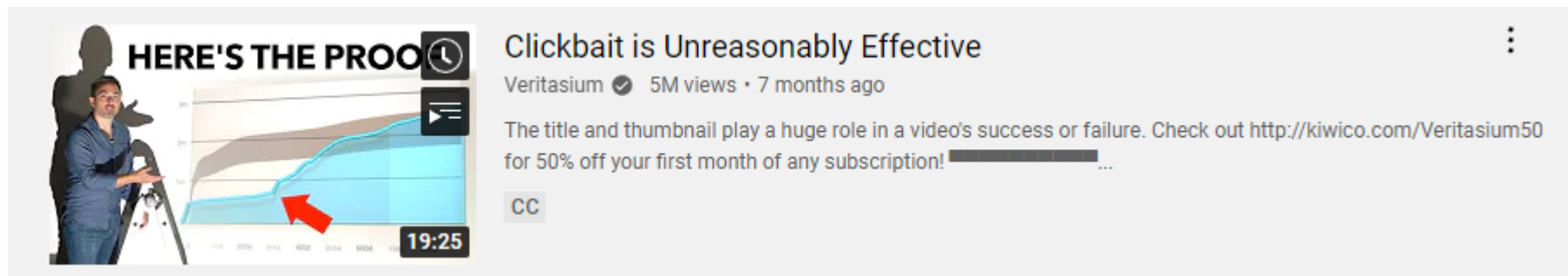
HOME VIDEOS PLAYLISTS COMMUNITY CHANNELS ABOUT

Uploads SORT BY

Thumbnail	Title	Views	Upload Date
	How Horses Save Humans From Snake Bites	1M views	1 day ago
	Future Computers Will Be Radically Different	5.8M views	3 weeks ago
	The Most Powerful Computers You've Never...	6.6M views	3 months ago
	The Snowflake Mystery	6.9M views	3 months ago
	Most People Don't Know How Bikes Work	12M views	3 months ago
	The Big Misconception About Electricity	13M views	4 months ago
	How Imaginary Numbers Were Invented	11M views	4 months ago
	I Rented A Helicopter To Settle A Physics Debate	6.3M views	4 months ago
	This Robot Walks, Flies, Skateboards, Slacklines	2.6M views	5 months ago
	How They Caught The Golden State Killer	4.5M views	5 months ago
	How Hidden Technology Transformed Bowling	10M views	5 months ago
	Why All Scorpions Are Fluorescent	1.9M views	6 months ago

Clickbait

- Content on the internet whose main purpose is to attract attention and encourage visitors to click on a link to a particular web page
 - Thumbnail
 - Short catchy title
 - Generate curiosity



Should we get rid of the traditional webinar / lectures?

Not at all.

Still very useful for those of us who are in the field.

Outreach opportunities?

slido



Any other outreach opportunities that you can think of? (e.g. health fair)

ⓘ Start presenting to display the poll results on this slide.

Take-home message

We, as One Lab community, have a lot to offer to promote proper laboratory testing and utilization.

Inclusivity

- Basic laboratory training should be expanded to include non-laboratorians.
- General public needs to know (1) if a test is needed (test utilization), (2) how to perform at-home test and (3) how to interpret those results.
- By assisting the general public, we can then gain more values in laboratory testing.

Health Literacy

- It's fundamental to the future of healthcare.
- We need to start by presenting science (laboratory testing) in a way that is easy for the public to understand and generate curiosity (Clickbait)
 - Test instruction and interpretation guide

Accessibility

- There are many good resources out there. We can enhance accessibility but promoting them.
- We shall intentionally seek opportunities to reach out to our community.

Thank you.

Let's connect if
you have thought
about this on how
we can
collaborate!

heyu@geisinger.edu

