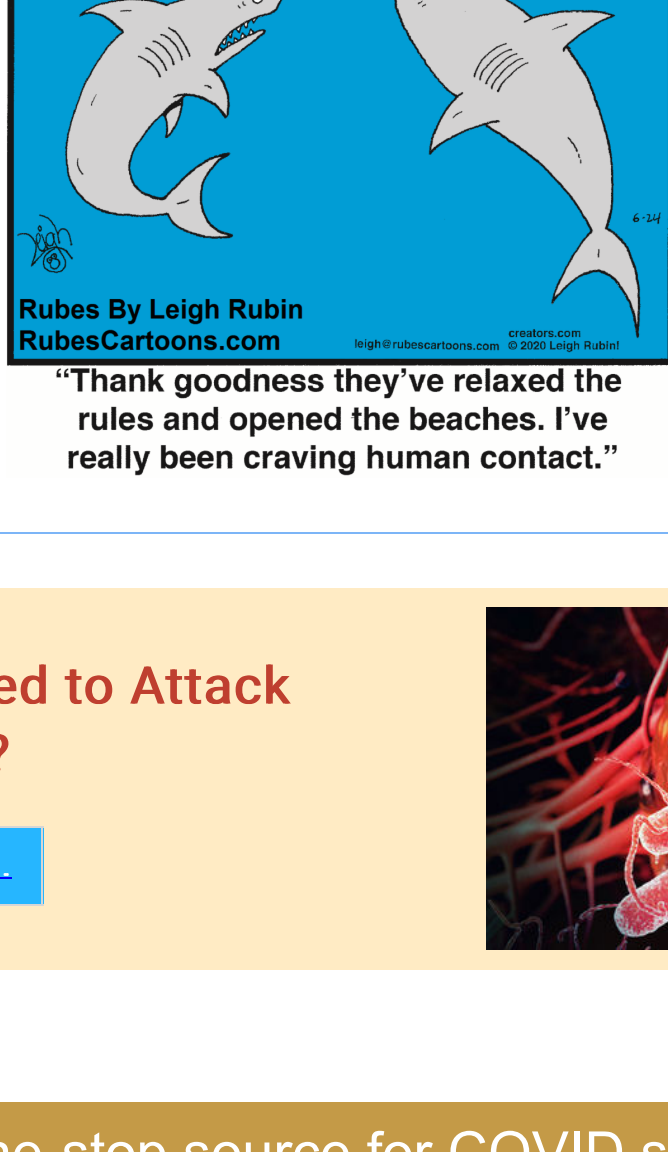


microBYTES

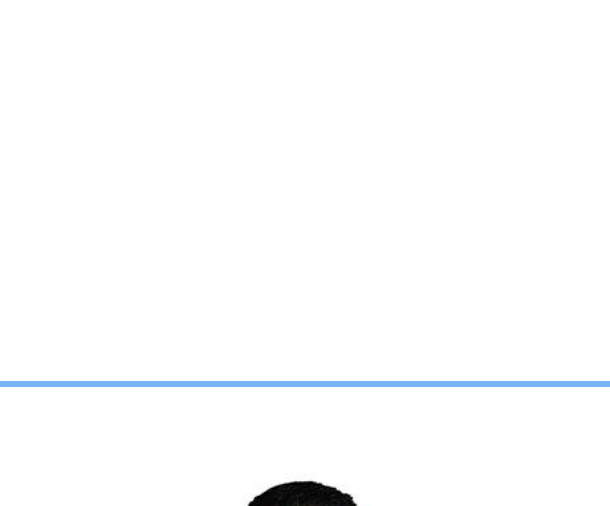


“Thank goodness they’ve relaxed the rules and opened the beaches. I’ve really been craving human contact.”

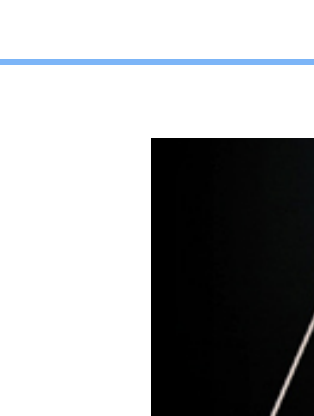
“Frenemies”

Can Bacteria be Used to Attack Tumors?

[Find out here...](#)



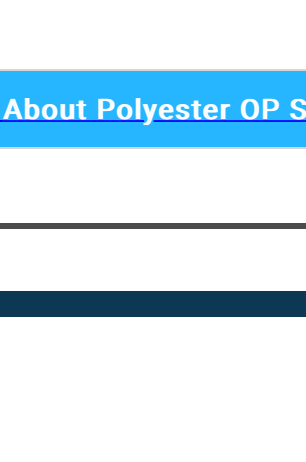
Your one-stop source for COVID supplies!



N95 Masks

NIOSH Certified, with silicone seal
Now available for immediate shipping!

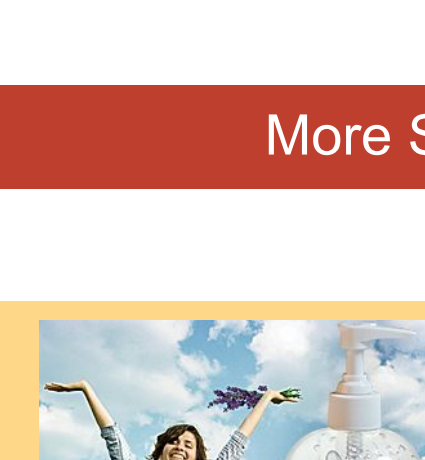
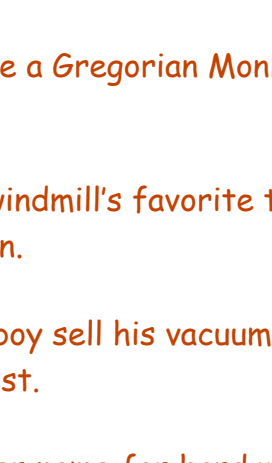
[Learn More...](#)



Face Masks

With adjustable metal nose band.
Now available for immediate shipping!

[Learn More...](#)



Specimen Collection Swabs

Hardy offers swabs in the flocked, foam, and spun polyester formats.
Pick from nasopharyngeal, oropharyngeal, standard, or urethral.

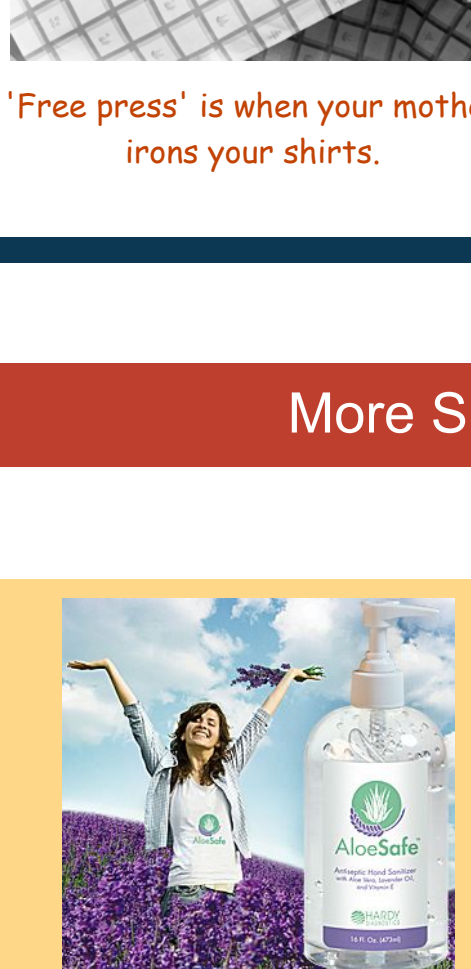
Available for immediate shipping!

[More About Flocked NP Swabs...](#)

[More About Polyester OP Swabs...](#)

WARNING:

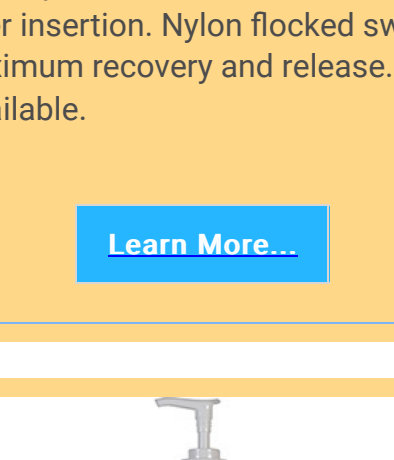
PUN ZONE AHEAD



“Free press” is when your mother irons your shirts.

- What do you call an arrogant convict going down the stairs...a condescending con descending?
- The tallest building in the city is the library, since it has the most stories.
- I wanted to be a Gregorian Monk but never got the chants.
- What is the windmill's favorite type of music? It's a big metal fan.
- Why did the boy sell his vacuum cleaner? All it did was collect dust.
- What's another name for hard water...Ice

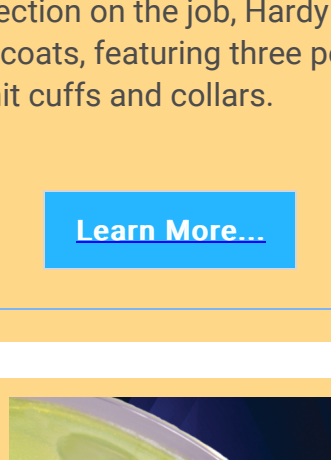
More Supplies to Keep You Safe



AloeSafe

Hardy's hand sanitizing gel guards against drying of your skin with Vitamin E, soothes with Aloe Vera, and has a pleasant scent with lavender oil. No harmful ingredients as with the cheap drug store variety! Don't your hands deserve the very best?

[Learn More...](#)



Face shields

For added protection on the job, Hardy offers face shields for immediate shipping. Comfortable foam headband.

[Learn More...](#)



Mid-Turbinate Swabs

Hardy's nasal, mid-turbinate swabs are ideal for COVID and flu specimen collection. The stopper prevents over insertion. Nylon flocked swab tip ensures maximum recovery and release. [Pediatric size](#) also available.

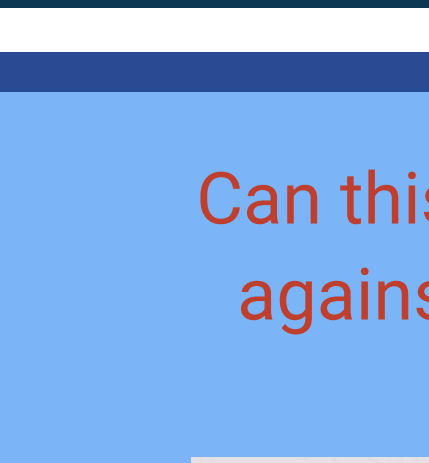
[Learn More...](#)



Lab Coats

For added protection on the job, Hardy offers disposable lab coats, featuring three pockets, and comfortable knit cuffs and collars.

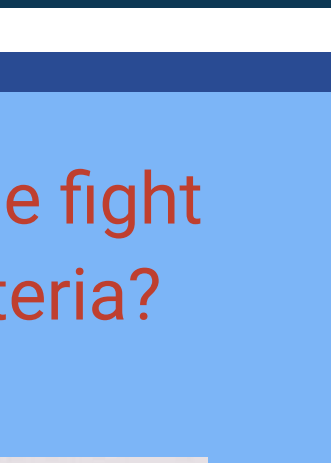
[Learn More...](#)



Hand Sanitizer Solution

Hardy's liquid hand sanitizer contains both ethanol and hydrogen peroxide for extra killing power.

[Learn More...](#)



Susceptibility Testing

Hardy offers a complete selections of products for Antimicrobial Susceptibility Testing (AST). Discs, media, etc.

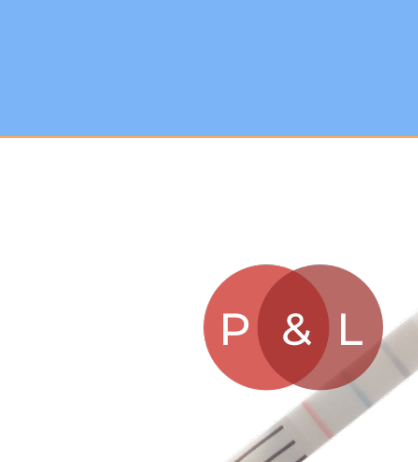
[Learn More...](#)



Legionnaires Disease

Hardy offers a complete selection of products for the detection of Legionella. Click below to see the product line...

[Learn More...](#)



UV Chamber

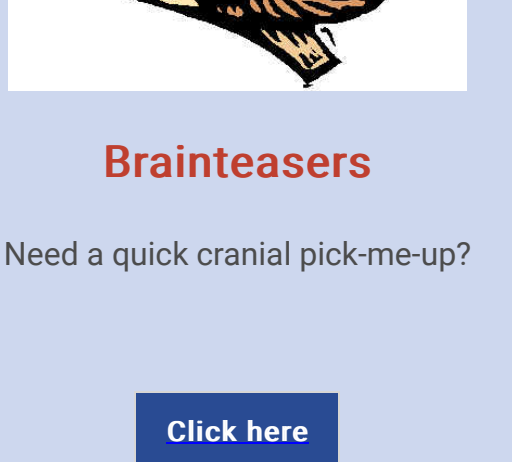
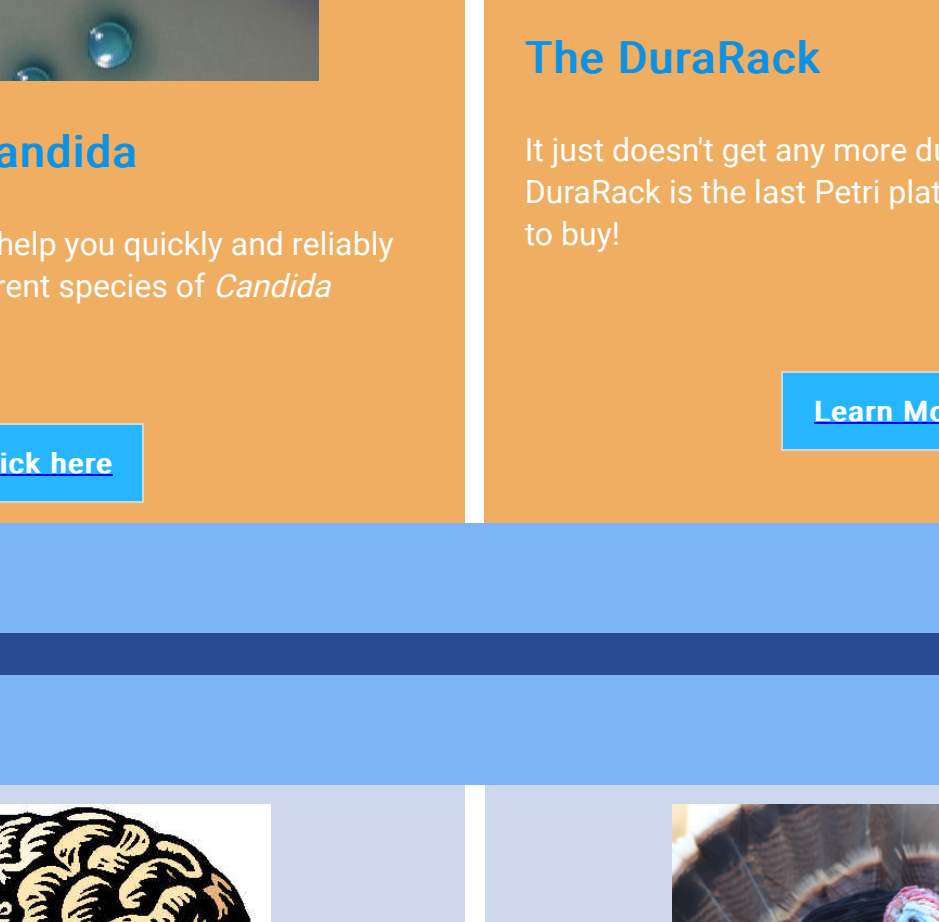
Now you can sanitize your valuable N95 masks to make them last longer. Never run out again! Sanitizes four masks in only four minutes!

[Learn More...](#)

[See a study about sanitizing and re-using masks...](#)

Can this be useful in the fight against resistant bacteria?

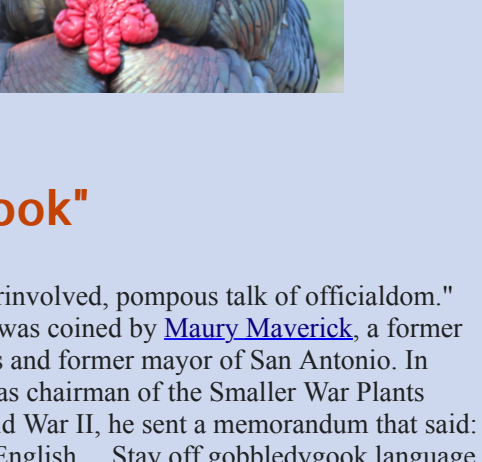
[Find out...](#)



HardyCHIROM Candida

A chromogenic plate to help you quickly and reliably detect and identify different species of *Candida* based on colony color.

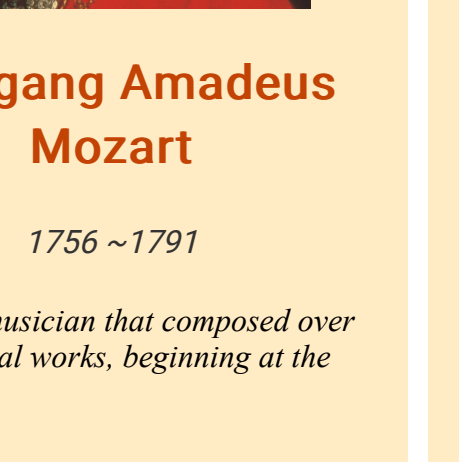
[Click here](#)



The DuraRack

It just doesn't get any more durable than this. The DuraRack is the last Petri plate rack you will ever have to buy!

[Learn More...](#)



Brainteasers

Need a quick cranial pick-me-up?

[Click here](#)



Phraseology: "Gobbledygook"

This means "wordy, overinvolved, pompous talk of officialdom." The term *gobbledygook* was coined by Maury Maverick, a former congressman from Texas and former mayor of San Antonio. In 1944, when Maverick was chairman of the Smaller War Plants Corporation during World War II, he sent a memorandum that said: "Be short and use plain English... Stay off gobbledygook language. 'Maverick defined gobbledygook as 'talk or writing which is long, pompous, vague, involved, usually with Latinized words.'" The allusion was to a turkey, "always gobbledygobbling and strutting with ridiculous pomposity." Similar words are jibber-jabber, rigamarole, bafflebagg, and double talk.

Wisdom to Ponder...



Wolfgang Amadeus Mozart

1756 ~1791

Austrian musician that composed over 600 classical works, beginning at the age of five.

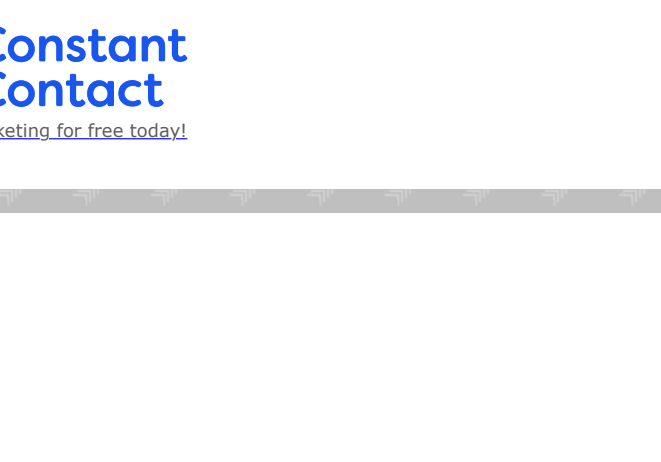
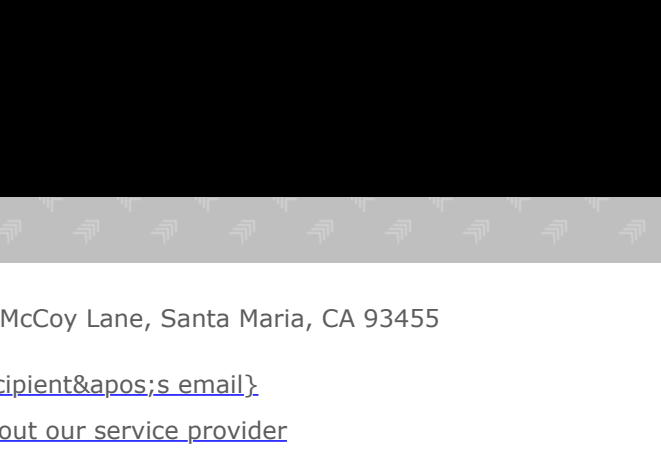
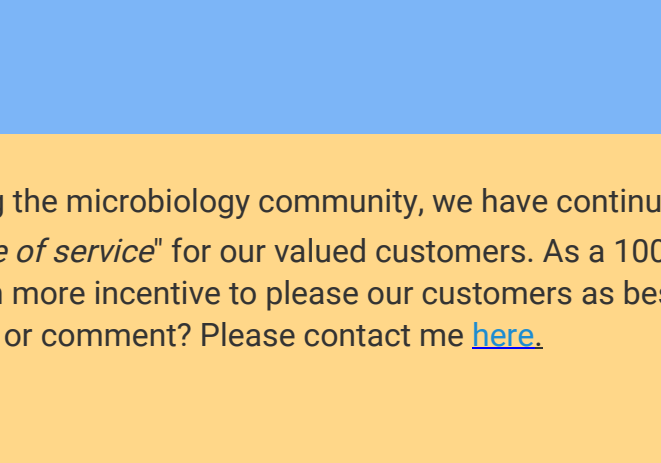
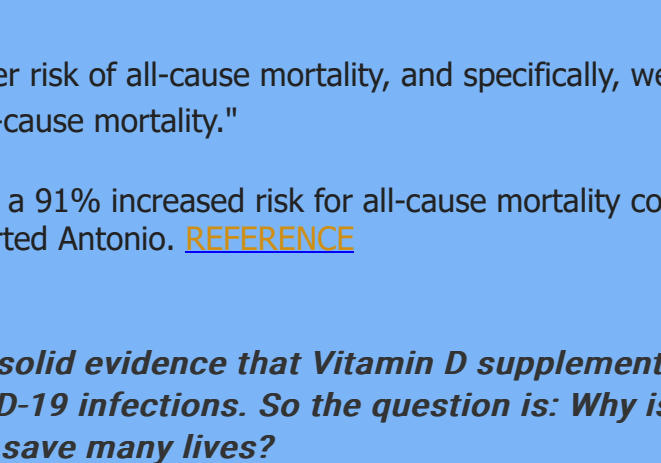
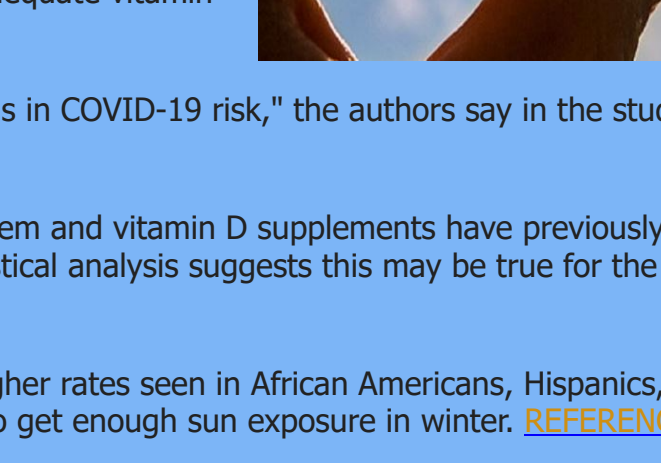
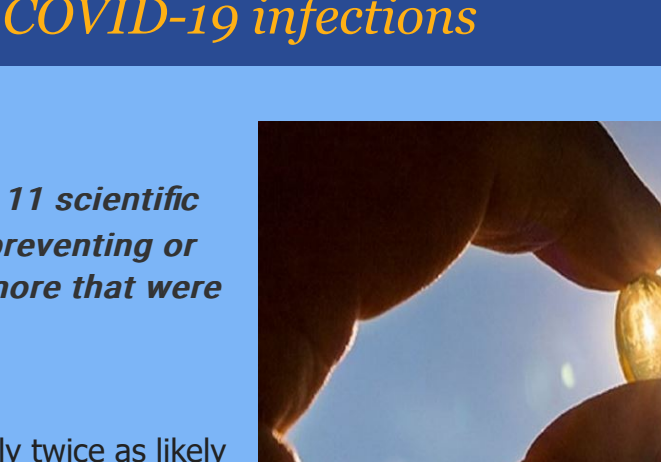
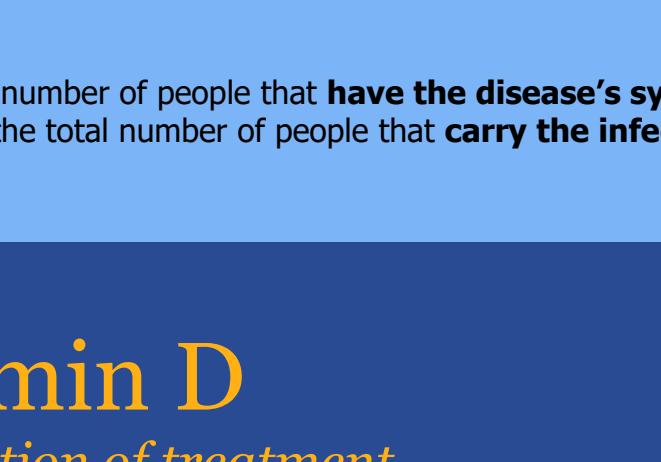
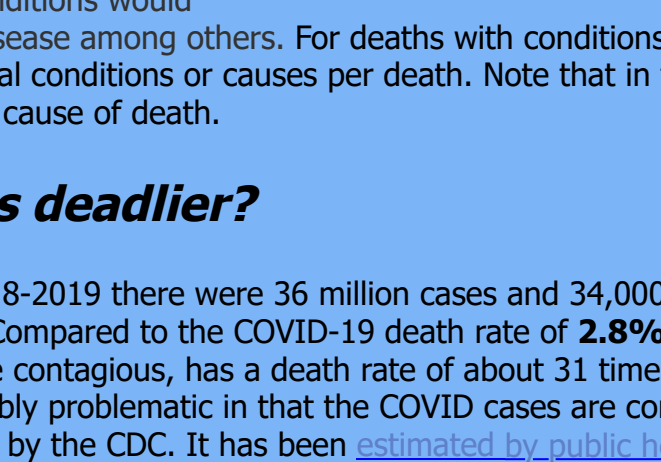
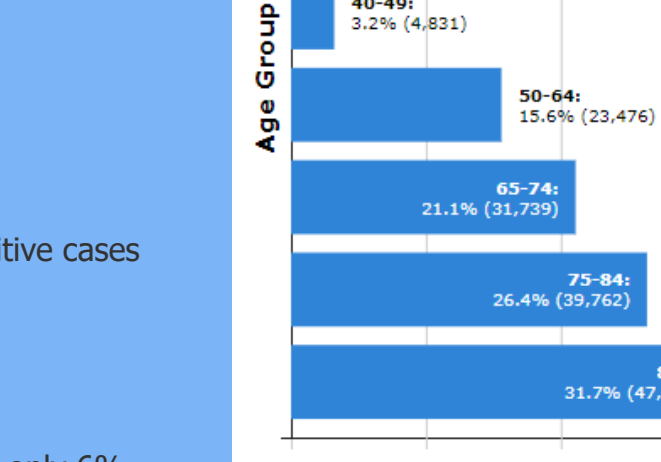
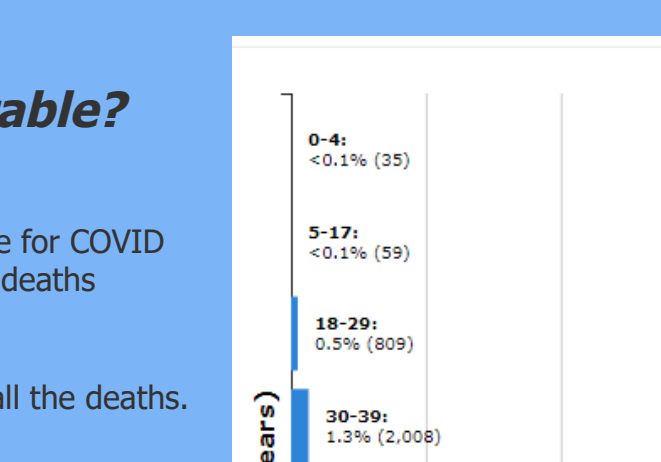
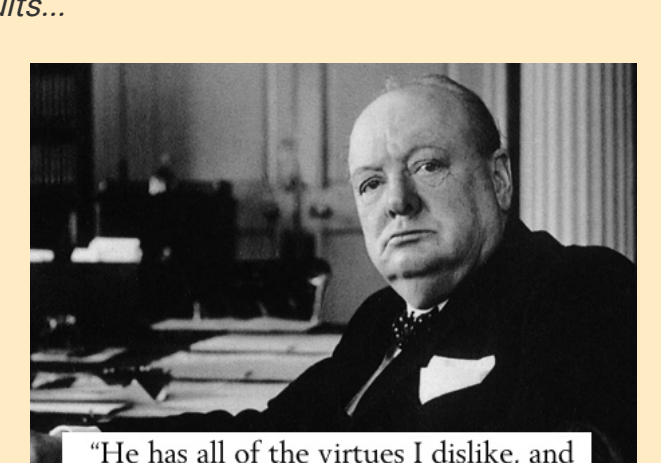
"I pay no attention whatever to anybody's praise or blame. I simply follow my own feelings."

"We live in this world in order always to learn industriously and to enlighten each other by means of discussion and to strive vigorously to promote the progress of science and the fine arts."

"I am one of those who will go on doing till all doings are at an end."

"Believe me, I do not like idleness but work."

"Neither a lofty degree of intelligence nor imagination nor both together go to the making of genius. Love, love, love, that is the soul of genius."



COVID-19 STATS

Which age groups are most vulnerable?

The latest [CDC statistics](#) show that the most vulnerable age for COVID deaths is 85 years and older, making up about 32% of the deaths overall.

School age children (ages 5 to 17) make up only 0.1% of all the deaths.

Persons 50 and over make up 95% of all the COVID deaths reported in the US so far.

The Male/Female death ratio is 54/46 percent.

This age data was collected from 150,396 deaths.

The [overall death rate](#) currently stands at 0.03% of all positive cases (210,000 deaths of 7,400,000 cases).

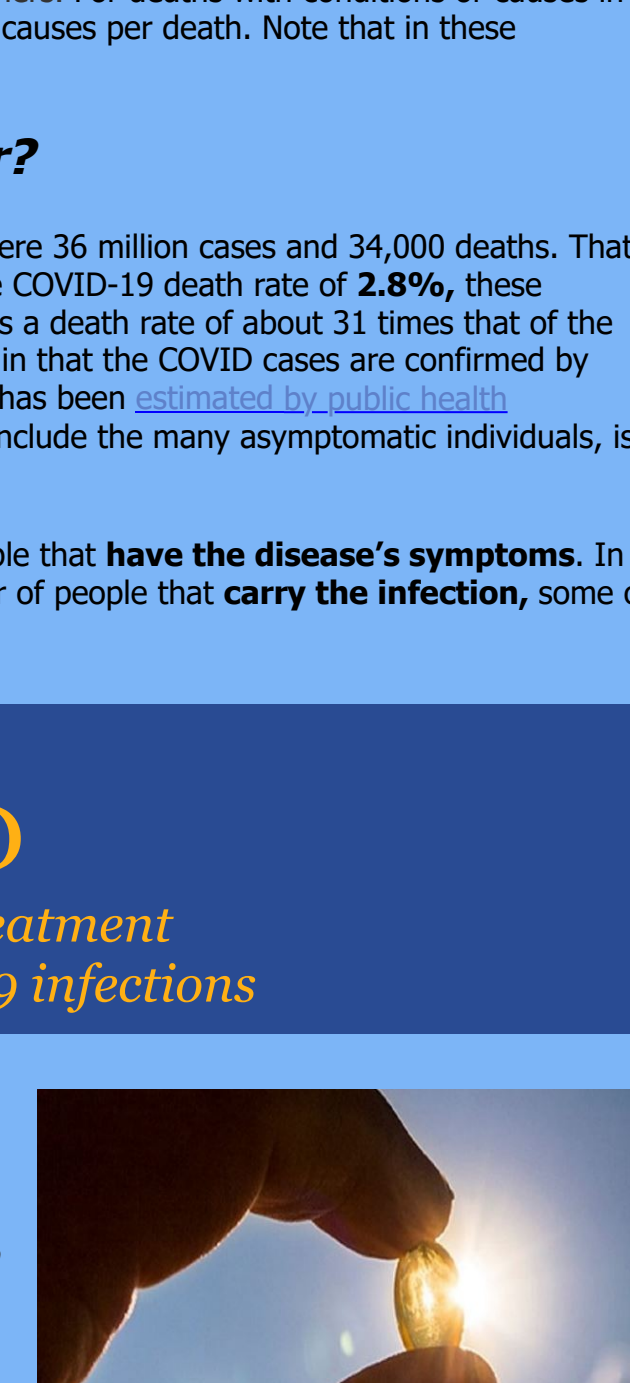
Comorbidities or Sole Cause?

The [CDC reports](#) that of all the COVID-19 deaths reported, only 6% listed COVID-19 as the sole cause of death. Underlying conditions would include diabetes, obesity, cancer, Alzheimer's, and heart disease among others. For deaths with conditions or causes in addition to COVID-19, on average, there were 2.6 additional conditions or causes per death. Note that in these complicated cases, COVID-19 could have been the leading cause of death.

Comparison to Influenza - Which is deadlier?

The [CDC estimates](#) that during the influenza season of 2018-2019 there were 36 million cases and 34,000 deaths. That puts the **Case Fatality Rate** (CFR) for the flu at 0.09%. Compared to the COVID-19 death rate of **2.8%**, these numbers imply that the current viral pandemic, being more contagious, has a death rate of about 31 times that of the seasonal influenza virus. However, this comparison is possibly problematic in that the COVID cases are confirmed by testing, but the influenza cases are an **estimated** number by the CDC. It has been [estimated by public health officials](#) that the **Infection Fatality Rate** (IFR) for COVID, which would include the many asymptomatic individuals, is currently **0.6%**, which is **six times** that of the flu.

The CFR is the total number of deaths divided by the total number of people that **have the disease's symptoms**. In contrast, the IFR is the total number of deaths divided by the total number of people that **carry the infection**, some of which may be asymptomatic.



Vitamin D

A neglected option of treatment and prevention of COVID-19 infections

In the last month's issue of MicroBytes, we listed 11 scientific studies that showed the efficacy of Vitamin D in preventing or treating serious cases of COVID-19. Here are two more that were recently published...

Individuals with untreated vitamin D deficiency were nearly twice as likely to test positive for COVID-19 relative to their peers with adequate vitamin D levels.

"These findings appear to support a role of vitamin D status in COVID-19 risk," the authors say in the study, published online September 3 in *JAMA Network Open*.

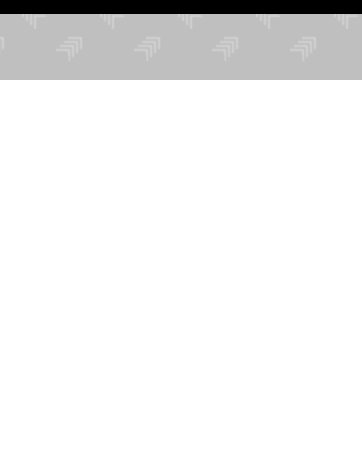
"Vitamin D is important to the function of the immune system and vitamin D supplements have previously been shown to lower the risk of viral respiratory tract infections. Our statistical analysis suggests this may be true for the COVID-19 infection."

Half of Americans are deficient in Vitamin D, with much higher rates seen in African Americans, Hispanics, and individuals living in areas like Chicago where it is difficult to get enough sun exposure in winter. [REFERENCE](#)

We found vitamin D deficiency is associated with a higher risk of all-cause mortality, and specifically, we found that free 25(OH)D, but not free 1.25(OH)2D, is predictive of all-cause mortality."

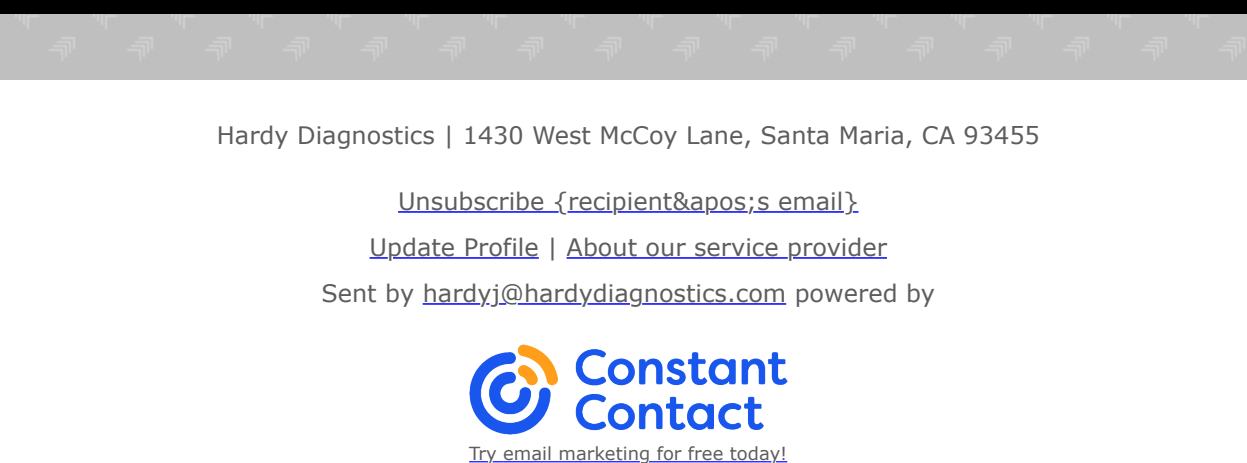
Men with the lowest free 25(OH)D levels (<4.43 ng/L) had a 91% increased risk for all-cause mortality compared to those with the very highest amount of free 25(OH)D, reported Antonio. [REFERENCE](#)

As you can see from the references above, there is solid evidence that Vitamin D supplementation is warranted in order to decrease the severity of COVID-19 infections. So the question is: Why is the media largely ignoring this research that could potentially save many lives?



During our 40 years of serving the microbiology community, we have continually aimed to provide the utmost in "a culture of service" for our valued customers. As a 100% employee owned company, we have even more incentive to please our customers as best we can every day. Do you have a suggestion or comment? Please contact me [here](#).

Jay Hardy, CLS, SM (NRCM)
CEO of Hardy Diagnostics



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