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GLOBAL EVIDENCE ON THE SAFETY AND SIGNIFICANCE OF FITNESS CENTERS AMID THE COVID-19 PANDEMIC



COVID-19 Research and Evidence

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I. Relative Safety of Fitness Centers Amid COVID-19

Gyms and leisure facilities in England have seen more than eight million visits in the first three weeks since reopening, and just 17 positive COVID-19 cases, [according to data from ukactive](#) (8/25).

A study in Australia which included 6.26 million check-ins across 423 gyms over a period of two months (June 13 - August 11) found zero cases of community transmission associated with gyms.

A US industry survey conducted by MXM, consisting of 2,877 health and fitness clubs, reports a mere 1,155 COVID-19 cases out of 49.4 million check-ins as of August 7. These findings break down to an occurrence rate of 0.002%.

A case control study published in the CDC's [Morbidity and Mortality Weekly Report](#) found that people who tested positive for COVID-19 were more likely to have dined in a restaurant or have had a close contact diagnosed with COVID-19. There was no statistically significant association between COVID-19 test results and visiting a gym.

According to tracing data reported by [New York](#) state, gyms were the source of just 0.06% of COVID-19 cases.

In [Illinois](#), less than 2% of COVID-19 cases were attributed to gym, fitness, and dance facilities.

Contact tracing in [Colorado](#) indicates only a small proportion of COVID-19 outbreaks related to health clubs/fitness centers since they reopened on June 5, 2020.

These findings were affirmed by an [analysis conducted](#) by the University of Oregon's Oregon Consulting Group (OCG). OCG researchers looked for relationships between check in data based on 8.5 million health club visits in Colorado and publicly available contact tracing information. The analysis found no statistically significant relationship between gym attendance and COVID-19 cases.

According to [contact tracing data](#) in Louisiana, over the past 14 days health clubs were responsible for about 2% of outbreaks and less than 2% of cases. Industrial settings, restaurants and retail were the top sources of outbreaks.

In other states including [Massachusetts](#) and [Washington](#) where fitness centers are combined with other sectors like casinos, pools, beaches and hospitality, outbreaks attributed to those locations appear to make up a small proportion of total outbreaks.

Preliminary [data collected](#) as part of a study at the University of Florida found no detectable SARS-CoV-2 (the virus causing COVID-19) in the air at Gainesville Health & Fitness.

Research conducted at Stanford and Northwestern University, published in the journal *Nature*, found that capacity limits are an effective method for controlling COVID-19 transmission while blunting economic damage. For example, in Chicago the study predicted limiting capacity at 20% of maximum occupancy cut infections—compared to a full reopening—by 80%, while only costing businesses 42% of their daily visits.

The risk of outbreaks in the community are ongoing across the globe. The scientific community and the industry continues to research and understand factors that facilitate widespread COVID-19 transmission—such as airborne particles. As they have since the start of the pandemic, the fitness industry will continue to evolve and adapt to create the safest possible environment for their members and communities to be physically active.

Health and fitness clubs are uniquely positioned to help the state, by conducting accurate and efficient contact tracing. Clubs use a check-in system, which allows them to identify who is in the club, as well as the date and time they visited.

II. Impact of Physical Activity and Metabolic Health on COVID-19 Severity, Outcomes

Higher levels of regular physical activity [were associated](#) with 31% lower odds of a community-acquired infectious disease, and 37% lower risk of infectious disease mortality. Additionally, post-vaccine antibody concentrations were higher when linked to a physical activity program.

Research published in the *British Journal of Sports Medicine* found being consistently inactive more than doubled the odds of hospitalization and death compared to being consistently active. The odds of ICU admission were 1.73 times higher. Even being less consistently active was associated with benefits, including 20% lower odds of death.

A [study](#) conducted at the Henry Ford Health System in Detroit, Michigan found that, for people positive for COVID-19, the odds of hospitalization were lower among people with higher fitness levels.

A [UK study](#) analyzing data on over 387,000 people found that individuals with the most unfavorable lifestyle factors (smoking, physical inactivity, and obesity) were four times as likely as those with the most favorable lifestyles to have COVID-19. According to their analysis, unhealthy lifestyles could be attributed to 51% of severe COVID-19 cases among the population.

A [study](#) conducted in Brazil which is still undergoing peer review, found that at least meeting global physical activity guidelines of 150 minutes moderate or 75 minutes vigorously actively each week was associated with lower prevalence of hospitalization after considering other factors like BMI and age.

An Iranian [study](#) including 206 people found that people with higher levels of physical activity experienced less severe cases of COVID-19 compared to less active patients. Better diet quality was also associated with less severe bouts of COVID-19.

Evidence shows that physically active lifestyles can improve immune system health and [diminish the risk of contracting some communicable diseases](#), including upper respiratory tract infections.

In a newly released [pre-print](#), researchers used genetic markers to assess obesity, alcohol use, lifetime smoking, and physical activity. They found a two-fold increase in risk of respiratory COVID-19 and COVID-19 hospitalization for people with obesity and lifetime smoking, and a five-fold decrease in risk of respiratory COVID-19 for people who were physically active.

According to the [Centers for Disease Control and Prevention \(CDC\)](#), people with physical inactivity related comorbidities including cardiovascular disease, diabetes, chronic kidney disease, and obesity are at higher risk of developing severe COVID-19 illness resulting in hospital admission, ICU admission, ventilation, or even death.

III. Detrimental Effect of COVID-19 Restrictions on Physical Activity, Physical and Mental Health

In a [survey](#) administered in Australia in April, 48.9% reported a negative change in physical activity. Negative changes in physical activity as well as smoking, alcohol use, and sleep were linked to higher symptoms of depression, anxiety, and stress.

An [analysis of data](#) from a popular free fitness app between January and June, 2020 revealed a 27.3% decline in step count within 30 days of the pandemic declaration. While step count seems to have rebounded in some US cities, it has not reached pre-pandemic levels.

An [online survey](#) of adults primarily in Asia, Europe, and Africa showed a decline in physical activity intensity during COVID-19 related closures, and an increase in sedentary time from 5 to 8 hours daily. Additionally, meal patterns trended toward the less healthful during stay at home restrictions.

During the [COVID-19 shut down](#) in Brazil, people who got more than 30 minutes of moderate or more than 15 minutes of vigorous activity had lower odds of having depression, anxiety, or both. People who were sedentary for longer than 10 hours were more likely to have symptoms of depression.

A study from [Boston University School of Public Health](#) found that depression rates tripled during COVID-19, going from around 8.5% pre-pandemic to 27.8%. One quarter of young adults (ages 18-24) seriously considered suicide in the 30 days prior to the survey. [CDC](#).

Of 287 patients [hospitalized](#) with COVID-19 in New Orleans, 66% had metabolic syndrome. Metabolic syndrome was associated with mortality, ICU admission, mechanical ventilation, and acute respiratory distress syndrome.

A [survey conducted by RunRepeat](#) found that, out of over 19,000 people surveyed, roughly 35% of people globally had gained weight during COVID-19 restrictions, with 71% gaining more than five pounds (2.2 kilograms).

Substance use has also increased. Forty [states reporting](#) an increase in opioid-related mortality. A [Baptist Health survey](#) found a 55% increase in alcohol use and a 36% increase in illicit drug use.

US [data](#) shows health clubs are an important part of consumers' lives, and contribute significantly to their mental and physical health.