Force Health Protection Branch
NATO MilMed COE
Munich

Short Update 20a
COVID-19
Coronavirus Disease
20th of May 2020

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GLOBALLY

4 865 154
Confirmed cases

1 840 947 recovered
323 379 deaths

USA
(new cases/day 22 660)
1 525 367 →
confirmed cases
289 392 recovered
91 781 deaths

Brazil
(new cases/day 11 446)

271 885 ↗
confirmed cases
106 794 recovered
17 983 deaths

Russia
(new cases/day 9 905)

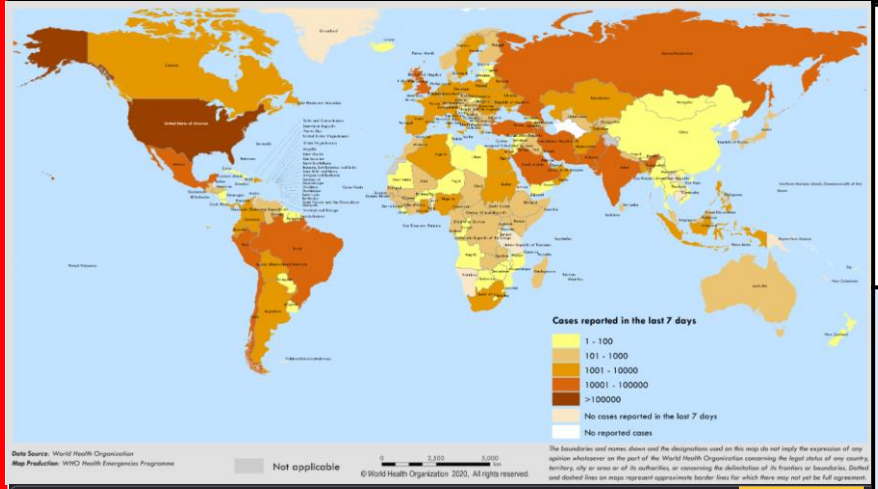
299 941 ↘
confirmed cases
76 130 recovered
2 837 deaths

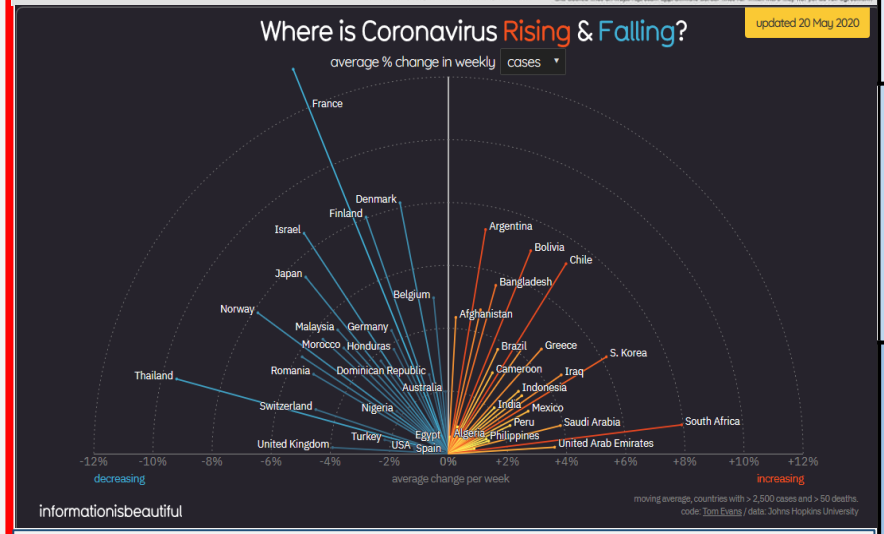
News:

- **EMA is considering contingent marketing approval of the antiviral drug Remdesivir for the treatment of coronavirus patients in Europe. This would depend on whether the experts classified the study data on the drug available to date as "robust enough".**
- **EU:** On 13 May, EC presented guidelines and recommendations to help Member States gradually lift travel restrictions, with all the necessary safety and precautionary means in place.
- **UN**: launched a site about "Domestic abuse: How to respond?" Talking about the risk and tips for coping with stress at home, as well show links of support organizations and legal rights.
- **World Medical President** warns against the opening of European borders for tourism. Travel will increase the risk of a second wave of infections. "We can't go back to normal yet" he announced.
- **WHO**: a new report on the health behaviours of 11–15-year-olds in Europe reveals more adolescents have been reporting mental health concerns. The results were based on data between 2014 and 2018 and provide a baseline against which future studies can measure the impact of COVID-19 on young people's lives.
- **Princeton University**: In a simulation study scientists found out that without effective control measures, strong outbreaks are likely in more humid climates and summer weather will not substantially limit pandemic growth.
- **China** reported five new cases of Covid-19 infections on Wednesday and Tuesday, and six on Monday. The government has enforced strict measures to curb a new outbreak. Around 700,000 people in the north eastern provinces close to the Russian and North Korean boarder have been placed under strict lockdown.
- Find Articles and other materials about COVID-19 on our website here
- Please use our online observation form to report your lessons learned observations as soon as possible here

Topics:

- WHO: Solidarity Trial
- Subject in Focus - CORONA VIRUS IMMUNITY
- Mental Health – sport reduce stress and depression





EUROPE

1 883 873
confirmed cases

859 969 recovered
168 639 deaths

SPAIN
(new cases/day 596)
232 037 ↘
confirmed cases

150 376 recovered
27 778 deaths

ITALY
(new cases/day 867)
226 699 ↘
confirmed cases

129 401 recovered
32 169 deaths

UK
(new cases/day 3335)
248 818 ↘
confirmed cases

-not reported- recovered
35 341 deaths

Situation in Europe

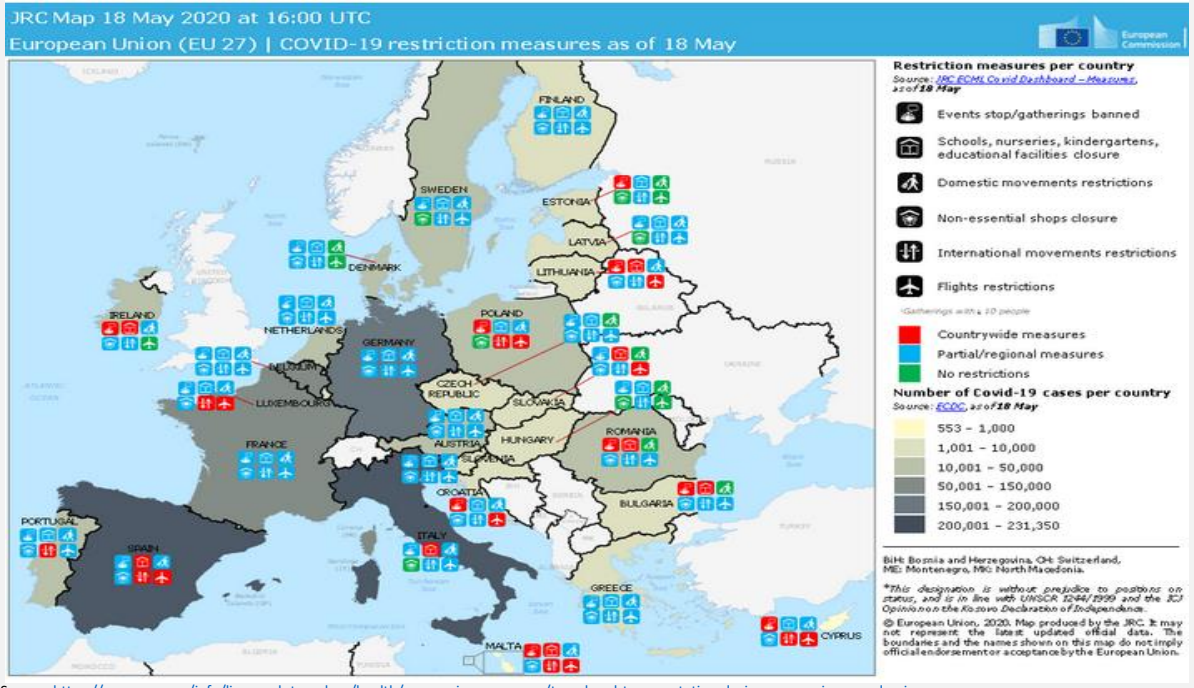
Safely resuming travel

As of 8 April all EU Member States had prohibited public gatherings, closed (totally or partially) schools and introduced some border/travel restrictions.

On 13 May, the European Commission presented guidelines and recommendations to help Member States gradually lift travel restrictions, with all the necessary safety and precautionary means in place. Measures intended to enable citizens to travel again after months of confinement include, but are not limited to:

- Safely restoring freedom of movement and lifting internal border controls
- Restoring transport services across the EU
- Safely resuming tourism services
- Ensuring cross-border interoperability of tracing apps
- Making vouchers more attractive for customers

Travel advice is a national competence and you should check if your national authority, e.g. the Ministry of Foreign Affairs, has issued an official travel warning concerning the planned destination. Travel advice is continuously updated as the situation evolves. As of 8 May the Commission recommended an extension of the temporary travel restrictions to the EU+ area until 15 June 2020.



Source: https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic_en

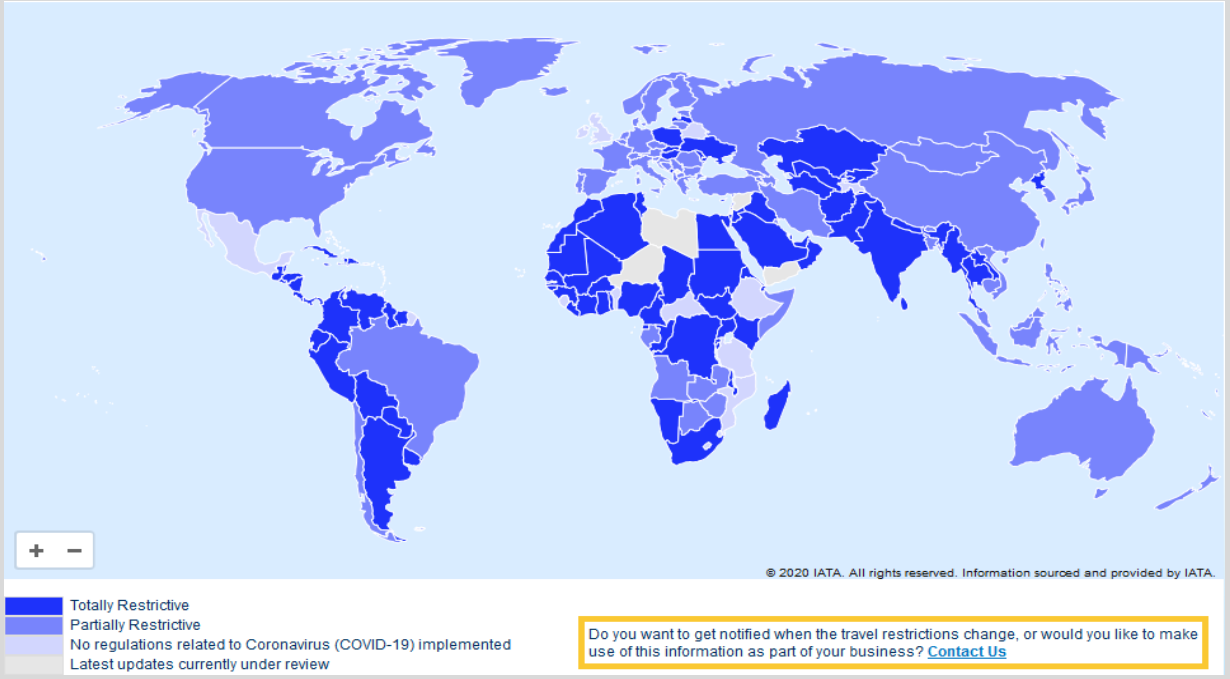
Global Situation

As a result of the COVID-19 pandemic, many countries and regions have imposed quarantines, entry bans, or other restrictions for citizens of or recent travellers to the most affected areas. Other countries and regions have imposed global restrictions that apply to all foreign countries and territories, or prevent their own citizens from travelling overseas

Many airlines have suspended inbound and outbound flights to affected countries.

Countries are continuing to implement additional health screening measures at transport hubs, including airports, sea ports and border crossings, to contain the spread of the COVID-19 outbreak. These include temperature checks prior to boarding planes and upon landing, stringent questions about itineraries, and medical declarations. Allow additional time to complete check-in formalities.

More information about worldwide travel restrictions, flight operations and screening you will find here.



Source: As of 19 May; https://www.iatatravelcentre.com/international-travel-document-news/1580226297.htm

WHO: Solidary Trial

While the research for an effective treatment continues, until there is sufficient evidence, WHO has cautioned against recommending or administering unproven treatments to patients with COVID-19 or people self-medicating with them. The consensus among world experts is that potential exists but that far more studies are urgently needed to determine if existing anti-viral drugs can be effective to treat COVID-19. If these treatments prove to be effective, they could reduce the burden of COVID-19.

WHO launched the Solidarity Trial on March 18 –a large international clinical trial to help find an effective treatment for COVID-19. The goal of the trial was to enrol patients in one single randomized trial that will help facilitate the rapid worldwide comparison of candidate treatments and overcome the risk of multiple small trials not generating the strong evidence needed to determine the relative effectiveness of potential treatments.

Initially, the Solidarity Trial will compare four treatment options against the standard of care, based on evidence from laboratory, animal and clinical studies. These include:

- chloroquine or hydroxychloroquine,
- remdesivir,
- lopinavir/ritonavir, and
- lopinavir/ritonavir with interferon beta-1a.

WHO planed to discover whether any of these existing drugs slow disease progression or improve survival by enrolling patients in multiple countries.

The primary outcome measurement is:

- all-cause mortality, subdivided by severity of disease at the time of randomisation.

The major secondary outcomes are:

- duration of hospital stay and
- time to first receiving ventilation (or intensive care).

Unlikly any other clinical trial the objectives of the Solidarity Trial will be achieved through new ways of working that includes:

- **Speed**; to simplify procedures with a simple randomized control clinical trial protocol and a paperless / web-based randomization and data system allowing for rapid centralized analyses. Through to the adaptive stud design it is possible to quickly add new treatment arms during the trial but also discontinuing treatments that are proven ineffective or unsafe.
- **Scale**; the approach ensure the greatest of enrolment by prioritizing countries at highest risk and hospitals that have the most number of adults with definitive COVID-19 symptoms and no in the study used drug contra-indication.
- **Access**; due to WHO donations togehther with five manufactures Who ensures that every country can join the trial and receive WHO technica and financial support including access to all trial drugs free-of-charge.

Participation

To date, 18 countries from five out of the six WHO regions and representing three out of the four World Bank income groups have started the Solidarity Trial. These 18 countries represent over 245 hospitals with 885 clinicians involved. Patient enrollment is nearing 3000.
Over 100 countries are interested in participating and WHO is engaged with more than 60. For the participation multiple steps needs to be ensured like:

- ethical and regulatory approvals of the WHO core protocol;
- identification of hospitals;
- raining of hospital clinicians
- shipping the trial drugs

By the end of May, WHO expect another 10-12 countries to start the Solidarity Trial.

Until than the interim trial analysis will be produced and will be monitored by a global Data and Safety Monitoring Committee (DSMC), an independent group of experts.

Further updates on the Solidarity Trial will continue to be made available from here.

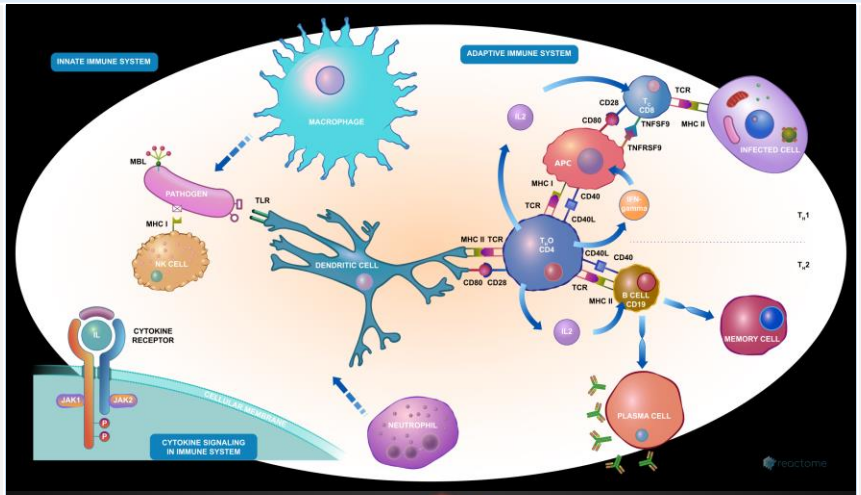
Source: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200518-covid-19-sitrep-119.pdf?sfvrsn=4bd9de25_4

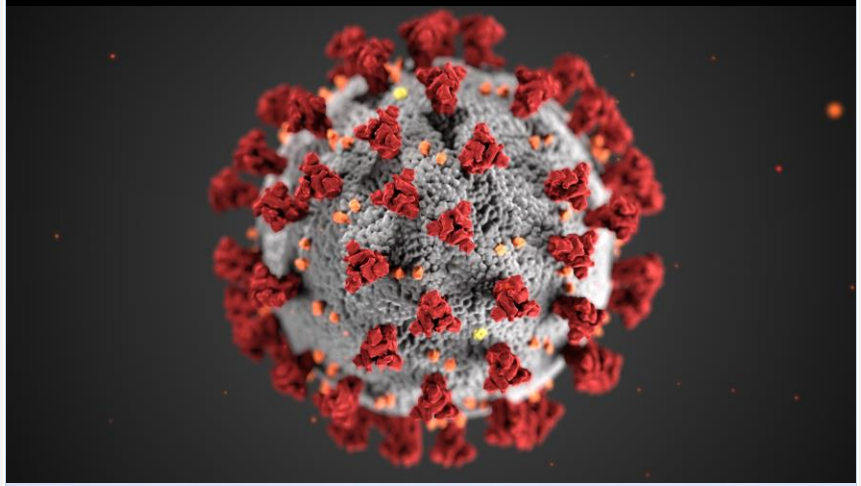
Subject in Focus:

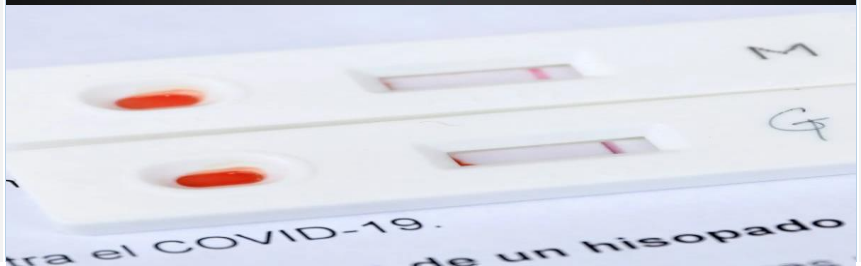
CORONA VIRUS IMMUNITY

Definition:
The capacity of resistance in developing a disease. An immune organism will be able to not develop a disease in the condition as being exposed to the cause.
There are 2 types of immunity in case of an infectious disease: cellular immunity and humoral immunity. The humoral response is essential against the pathogen agents as bacteria and viruses. The specific immunoglobulins produced by the organism have the capacity of neutralizing the viruses and bacteria. The humoral immunity can be developed natural after exposure to the pathogen and artificially by vaccination.

Importance
At the populational level the number of immune individuals is picturing the capacity of the infection to spread. A large number of immunes will reflect in a low number of infected patients, defining the resistances in front of the pathogenetic, limiting the dimensions of an outbreak.
An epidemic or pandemic situation will end when most of the individuals are already immune and resistant in front of the infection.
When a vaccine is not available, the epidemics or pandemics are limiting themselves after a certain number of the individuals were exposed to the respective microorganism developing natural immunity.
In this SARS CoV 2 pandemic, the extraordinary non pharmaceutical protective measures, beside the main effect of reducing the extension and effects of the infection, the additional side effect is the low exposure of the general population to the virus, preventing the development of the natural immunity.
If the virus did not change the infectivity, in the absence of the protective measures, the unexposed individuals, will have the same level of receptivity, being at risk to be infected and to develop the disease.







Methods:
In the particular case of SARS CoV 2 virus there is now active and specific method of artificial immunization, at this moment no vaccine being available.

There are 2 methods for determining the immune status of the individuals:
Documented infection (passive method)
Patients confirmed using RT-PCR, after declared cured, can be assumed that they developed specific immunity, reaching a certain level of resistance. However, there are contradictory results of different studies which are questioning the fact that a former infected is able to develop efficient immune response, reaching an effective protection against a new infection.

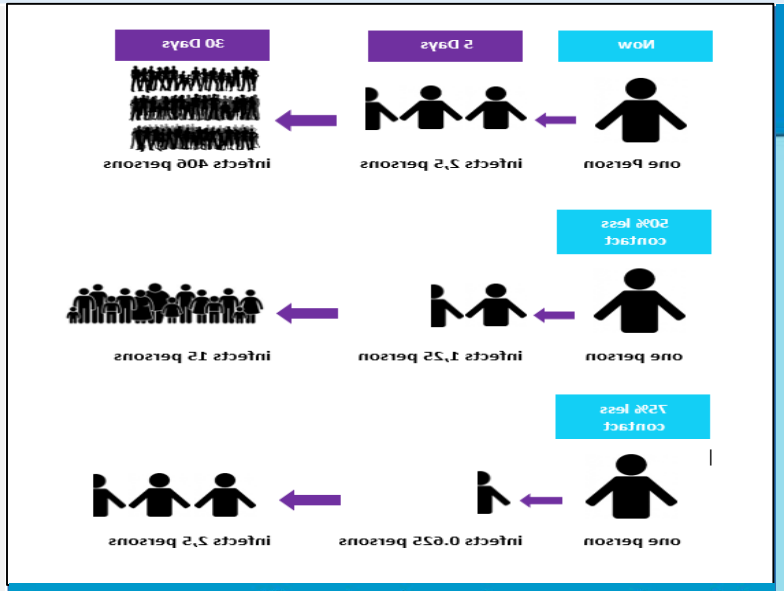
Specific antibody (IgG) testing (active method)
Specific for SARS CoV 2, a significant number of infected did not develop any kind of symptoms, or they developed mild and unspecific kind of symptomatology. A large number of these individuals were not tested (RT PCR), so they are not documented as infected, but still having a big chance to develop natural immunity.
Active measures of testing meant to document the presence of the specific antibodies will objectivise the number of immune individuals, providing a picture of the populational level of immunity at the community and national level.

Conclusion:
The immunity level of the population should be one of the most important factors in establishing the de-escalation strategies
The community immunity level is the main reference in prediction of the outbreak evolution after easing the non-pharmaceutical protection measures
The specific IgG testing is the main method of measuring the immunity
The immunity map will influence the vaccination necessity and policy.

Friendly Reminder

You can reduce your chances of being infected or spreading COVID-19 by taking some simple precautions:

- Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water.
  Why? Washing your hands with soap and water or using alcohol-based hand rub kills viruses that may be on your hands.
- Maintain at least 1 metre (3 feet) distance between yourself and others.
  Why? When someone coughs, sneezes, or speaks they spray small liquid droplets from their nose or mouth which may contain virus. If you are too close, you can breathe in the droplets, including the COVID-19 virus if the person has the disease.
- Avoid going to crowded places.
  Why? Where people come together in crowds, you are more likely to come into close contact with someone that has COIVD-19 and it is more difficult to maintain physical distance of 1 metre (3 feet).
- Avoid touching eyes, nose and mouth.
  Why? Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and infect you.
- Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissue immediately and wash your hands.
  Why? Droplets spread virus. By following good respiratory hygiene, you protect the people around you from viruses such as cold, flu and COVID-19.
- Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever, until you recover. Have someone bring you supplies. If you need to leave your house, wear a mask to avoid infecting others.
  Why? Avoiding contact with others will protect them from possible COVID-19 and other viruses.
- If you have a fever, cough and difficulty breathing, seek medical attention, but call by telephone in advance if possible and follow the directions of your local health authority.
  Why? National and local authorities will have the most up to date information on the situation in your area. Calling in advance will allow your health care provider to quickly direct you to the right health facility. This will also protect you and help prevent spread of viruses and other infections.



Protect yourself and others from getting sick

Wash your hands

- after coughing or sneezing
- when caring for the sick
- before, during and after you prepare food
- before eating
- after toilet use
- when hands are visibly dirty
- after handling animals or animal waste

World Health Organization

Mental Health

Sports reduce stress and depression

Source: https://www.healthinsider.org/12-no-equipment-abs-workout/

Mental health is the level of psychological well-being or an absence of mental Illness. It is the state of someone who is "functioning at a satisfactory level of emotional and behavioral adjustment".[1] From the perspectives of positive psychology or of holism, mental health may include an individual's ability to enjoy life and to create a balance between life activities and efforts to achieve psychological resilience. According to the World Health Organization (WHO), mental health includes "subjective well-being, perceived self-efficacy, autonomy, competence, inter-generational dependence, and self-actualization of one's intellectual and emotional potential, among others". The WHO further states that the well-being of an individual is encompassed in the realization of their abilities, coping with normal stresses of life, productive work, and contribution to their community. Cultural differences, subjective assessments, and competing professional theories all affect how one defines "mental health".

Sports reduce stress and depression
Exercise reduces the levels of stress hormones in your body. At the same time, it stimulates production of endorphins. These are natural mood lifters that can keep stress and depression at bay. Endorphins may even leave you feeling more relaxed and optimistic after a hard workout.

Improves mood and **mental** health.
Exercise promotes chemicals in the brain that improve your mood and make you more relaxed. Specifically, the brain releases feel-good chemicals called endorphins throughout the body. **Physical activity** reduces anxiety and depressed mood, and enhances self-esteem.

How do sports help your brain?
Research shows that playing **sports** boosts blood flow to **your brain**. This enables **your** body to build more connections between nerves within the **brain**. This improves memory, stimulates creativity, and **helps your brain** develop better problem-solving skills. One study found that playing **sports** can improve **brain** function.

Mental Health Benefits Of Exercise
Reduce Stress. Rough day at the office? ...
Improve Self-Confidence. ...
Enjoy The Great Outdoors. ...
Prevent Cognitive Decline. ...
Alleviate Anxiety. ...
Boost Brainpower. ...
Sharpen Memory.

A **good walk** can do wonders for your **mental** wellbeing.
Being active has a whole range of **benefits** when it comes to **mental** wellbeing. It **improves** self-perception and self-esteem, mood and sleep quality, and it reduces stress, anxiety and fatigue.

Source: https://www.acefitness.org/certifiednewsarticle/2698/off-the-floor-training-for-the-core