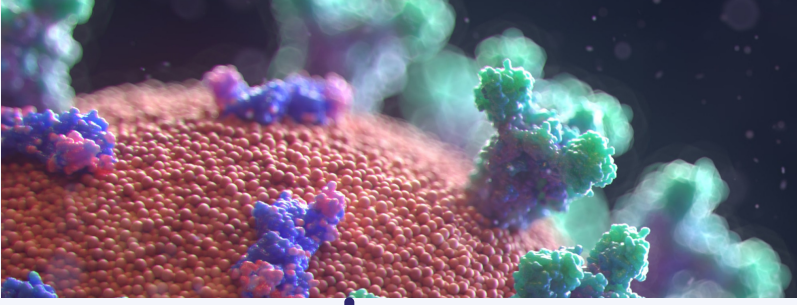
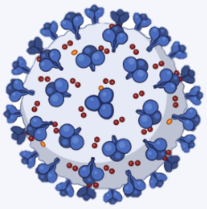


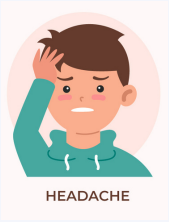
COVID-19
What's Next?

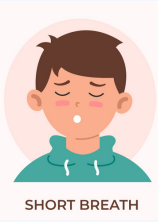
Caused by



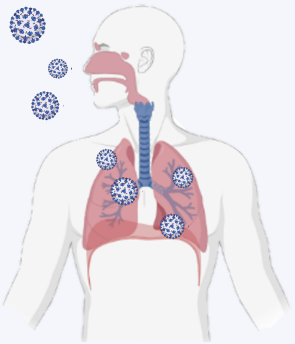
Coronavirus
SARS-CoV-2

Symptoms





What happens when COVID-19 virus attacks us?



Covid-19 is inhaled into the lungs

Asymptomatic Group

The virus is encapsulated, has not spread to trigger immune response yet.

Symptomatic Group

The virus has spread, the immune system tries to fight back with fever, cough, tiredness.

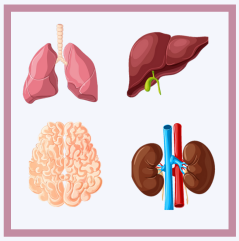
Underlying Medical Condition Group

Immune system too weak to fight, exhibit severe symptoms.

Strong immunity

The virus is eliminated from the body before showing any symptoms.

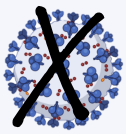
Weak immunity



Viruses may travel and cause organ damages (brain, kidney, liver, lungs, etc.)

Do you FULLY RECOVER from a COVID-19 infection?

TESTED NEGATIVE



No more active and infectious coronavirus in your body.

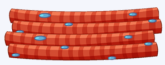
BUT

Your organs are probably ALREADY damaged.

6 MAIN ORGANS affected by COVID-19 infection

Strong Regenerative Abilities

Can heal by self over time



Muscle

Liver

Poor Regenerative Abilities

Hard to repair by self

Lung

Brain

Kidney

Reproductive system

Prevention of COVID-19

AVOID virus infection

Use Mask

Maintain social distance

Eat healthy

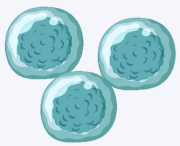
Wash your hand regulary

Vaccination

Stay at Home

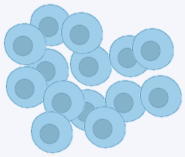
Post-COVID-19 Recovery

REPAIR organ damages



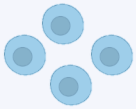
Stem cell therapy

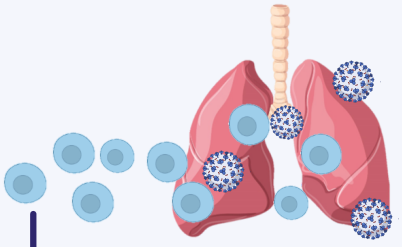
OR



Exosome therapy

What is stem cell & exosome for COVID-19 recovery?





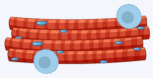
Body Organs

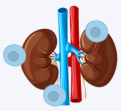
Stem cell

Stem cells are special cells that can regenerate into any types of cells in our body for cell repair & cell renewal.

Exosome

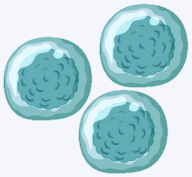
Stem cells send out exosomes that "carries the repair message" to damaged organs for repair to take place.





The use of stem cell therapy & exosome therapy as Regenerative Medicine for post-Covid-19 recovery is an ongoing research that indicates promising results.

Which is a BETTER THERAPY? Stem cell vs exosome



Stem cell therapy

Using Live Stem Cells

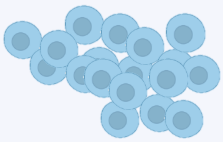
Can replicate in body for long-lasting cell repair & cell renewal effect

VS

Exosome therapy

Exosomes are used to send "repair message" to damaged organs

Short term (4-6 months) repair effect as exosomes "message" will wear off



REFERENCES

[1] Jain, U. (2020). Effect of COVID-19 on the Organs. Cureus, 12(8).

[2] Leung, T. Y. M., Chan, A. Y. L., Chan, E. W., Chan, V. K. Y., Chui, C. S. L., Cowling, B. J., ... & Wong, I. C. K. (2020). Short-and potential long-term adverse health outcomes of COVID-19: a rapid review. Emerging microbes & infections, 9(1), 2190-2199.

[3] Al-Khawaga, S., & Abdelalim, E. M. (2020). Potential application of mesenchymal stem cells and their exosomes in lung injury: an emerging therapeutic option for COVID-19 patients. Stem Cell Research & Therapy, 11(1), 1-33.

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