



Residential Market | Covid-19 impacts on Rethinking Building's Industry

Konceptness Report for IPBN – 15 de abril 2020

Experts are almost certain that by 2030, **climate change's effects** will bring us similar continuous pandemics, threatening our daily life!

"It's hard to imagine anyone who hasn't had some significant loss during the current crisis." Building Design + Construction Network

This make us question what is for now? What is for the future?

**We must be sure that the Covid-19 Crisis will
strengthen our ability to respond in the future.**

Questions running through our minds!

NOW Stay At Home

What to do to decelerate the spread of Covid-19

FUTURE Buildings are a key feature to make things better

/ Life after the Covid-19 will never be the same!

/ What TO LEARN?

Good Practice for **People**

Good Practice for **Business**

Good Practice for **Environment**

/ What preparedness steps should we consider for the future?

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/ Covid-19 impacts on residential buildings as a new workplace!

1 | **Health measures!** How to manage effectively? How to reduce the risk of infection?

Health and Safety measures to work from Home! And The problem of overcrowded housing in big cities!

Increase Ventilation

Ventilating with outdoor air is vital to diluting airborne contaminants and decreasing disease transmission rates. For buildings without heating and ventilation systems, another option is simply to open windows to let in more outdoor air.

Maintain Good Level of

Humidity

Evidence suggests that viruses survive better in low-humidity environments. Buildings can increase humidity via heating and ventilation systems to maintain an optimal range of 40 to 60%, or by purchasing and installing portable humidifiers throughout.

Filter Indoor Air

Some technologies sanitize air and surfaces through the release of ions to:

- a) break down the protein surface of the virus to be unable to infect individuals;
- b) cluster individual virus particles, forming larger, heavier particles that can be trapped by air system filters or fall down on the floor far from our breathing zone;
- c) neutralize virus charges to not cling to surfaces.

**We need to have
air moving from
clean to dirty
places !**

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So Why Air Quality matters for current or future pandemics ?

The 2003 Sars epidemic exploded all over the globe! when an infected healthcare worker, went to a friend's wedding in Hong Kong. Then, the World Health Organization declared that: "A global outbreak was thus seeded from a single person on a single day on a single floor of a Hong Kong hotel."

"If buildings can make things worse, they can also make things better."

Harvard university Professor Joseph Allen for the FINANCIAL TIMES

**Air Quality has a
vital role to have
healthy indoor
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So Why Air Quality matters for current or future pandemics ?

- Increasing ventilation and filtration rates above industry minimums, and when using more portable air purifiers to support the building systems:

Reduces the relative risk of virus transmission by 50 per cent

- Higher outdoor air ventilation rates and better filtration:

Reduce risk from influenza, rhinovirus, tuberculosis and Sars

Harvard university Professor Joseph Allen for the FINANCIAL TIMES

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Enhance your Building/Space

Cleaning Routine

Increase cleaning frequency, replenish cleaning supplies ahead of time, and ensure that bathrooms stay stocked with hand soap, hand sanitizer, paper towels, and tissues

Surface cleaning is an important mechanism to limit disease spread, including Covid-19!

Set Handwashing

Signage/Reminders

In reference to WHO recommendations that washing hand frequently for 20 seconds has a great effect on preventing the spread of the infection



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2 | Are our residential buildings ready to work from home ?

To have simultaneous functions as a workplace and study place for our kids!

- Are our residential buildings prepared to have all of these people home at the same time?
- What problems did people discovered in their residential building now that is not helping them to adapt with the current situation, to solve and avoid in our future buildings?

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2 | Are our residential buildings ready to work from home ?

Now, we need to guarantee the Health and Safety of our employees working from home

- / Support with advice about working times and regular pauses
- / Considering time for lunch
- / We need to keep connected with our team!
- / Guarantee the best possible workstation setup

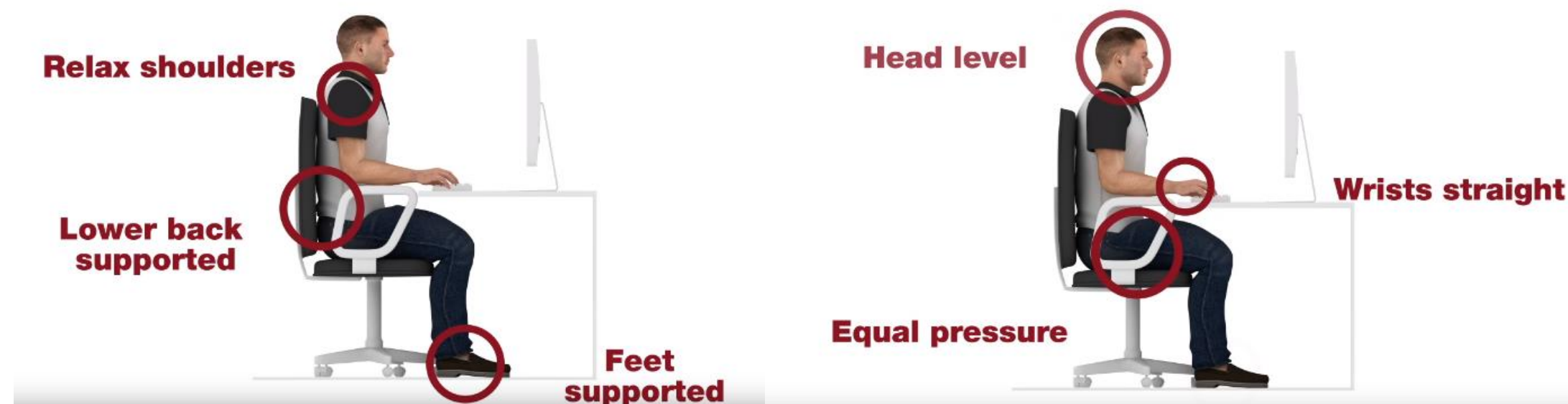


Illustration by HSE | UK for the best workstation setup

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3 | Fire and Safety Regulations! Are a must for any Workplace!

What about Residential Buildings?

Should the minimum Fire and Safety regulations be mandatory for residential buildings that in these periods act as multifunctional spaces occupied for more hours with more people?

**Preparedness
ACTIONS!**

For Real Estate Industry!

**To guarantee Business
Continuity and Stability!**

**Now, Residential
Buildings are
occupied with

More People
For More Hours !**

2017 |

**Grenfell Tower Fire in
London**



By Natalie Oxford

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4 | **In case of mandatory quarantine and Working from Home !** Homes need to serve as indoor and an outdoor spaces to breath fresh air!

Is the current design of the majority of residential buildings ready for this?

Is it ready to offer a retreat from viruses and infections?

Indoor!

- / Disinfecting zones will be the main entrance into your house
- / Increasing demands for a lamp that generates ultraviolet radiation, which can kill some harmful organisms, viruses and bacteria.



<http://www.xinhuanet.com/>

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4 | In case of mandatory quarantine and Working from Home ! Homes need to serve as indoor and an outdoor spaces to breath fresh air!

In high-rise buildings where the apartments are on top of each other, or may be each room in the one apartment is occupied by other occupants!

In times of pandemic, the need to reduce contact with everything that is used by several people becomes very challenging and force us to stay indoors for almost all the time!

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4 | **In case of mandatory quarantine and Working from Home !** Homes need to serve as indoor and an outdoor spaces to breath fresh air!

After this mandatory
self-isolation
in Residential Buildings

**Many are expecting
raise in the demand
for housing facilities
with its own garden,
and far from
polluted cities.**

In the future people will:

**/ Invest more time and budget to
guarantee the comfort of homes
to adapt with any future changes**

**/ Create designs and use
materials that is easily cleaned**

**/ Pay for water and air filtrations
to systems to guarantee their
quality**

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5 | Work from Home WFH | Changes for our Business and Environment !

Is Covid-19 a wakeup call to reconsider the design of residential building in dense urban cities?

Is it a chance to reduce the overcrowding in our cities by giving employees more chances to work remotely!

Now | Work from Home is under business experiment!

Future | Business travel will become less essential! Online meetings saved time, money and energy!

For the environment, this less traffic caused less CO₂ emissions! And now the earth is breathing again!

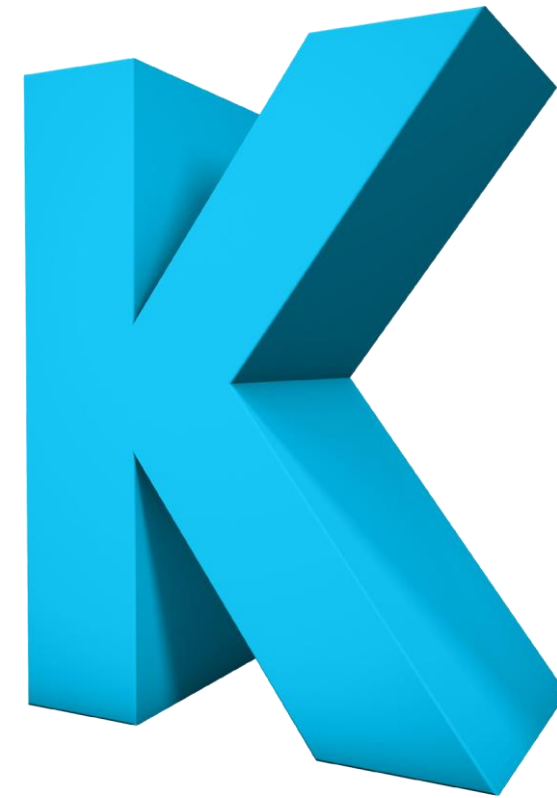
<https://diginomica.com/predictions-post-coronavirus-world-where-digital-king>

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Conclusion

- **Healthy buildings** play a central role in creating a healthy world.
- Building healthy indoor environments will be essential to both preventing illness and preventing loss of productivity, and **ensure the stability and continuity of your Business**.
- Climate changes now are leaving us no chance to think more. We must take action to ensure that our homes/residential buildings are healthier in the future...

The Covid-19 Crisis is strengthening our ability to respond in the future!



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Thank you

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