

COVID19 – What else we can all do to protect ourselves?

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As schools close, some shops' shelves become empty and many people go into voluntary self-isolation, most of us are focusing on how to manage in this very different world and there is not much headspace to think about what happens next. One unspoken view many of us are hanging on to that if we self-isolate for a week or so the problem will pass and all will be well. That is very comforting, but likely to be overly simplistic.

What tends to happen with viruses is that we develop immunity or we succumb. The proportions recovering or dying depend on how dangerous the virus is. Rhinoviruses cause symptoms of the common cold and are only hazardous to the very sick, the very old or sometimes very small babies. The proportions are different with Ebola virus. If a virus is circulating in the population all the time, people get sick, get immune and recover, or succumb at a steady state and health services can cope with caring for those who get very sick and need intensive or palliative care. We are used to this happening and take for granted that people who are very elderly or sick could die in this way.

When the level of immunity in the population is high it is difficult for a virus to circulate because it only meets people who are immune and cannot spread from person to person. At that point the population is said to have herd immunity. Viruses circulate freely in day nurseries amongst children who have not met them before and so there is no herd immunity. New viruses like Covid-19 create the mayhem we are currently experiencing because at the beginning of the outbreak no-one has immunity and the virus has a lot of choice about whom it spreads to. Hand washing, binning tissues, and self-isolation reduce the rate of spread.

Not everyone who meets viruses gets symptoms. If the immune system is working well and the dose is small it is possible to develop immunity without disease – the technical term is sero-conversion. This is the principle that is exploited in the development and administration of vaccines. At present, because we do not have population testing, we do not know what proportion of the population is meeting Covid-19, sero-converting and not getting symptoms. We do not even know what proportion of people self-isolating with fevers and coughs have symptoms caused by Covid-19 rather than one of the many other viruses that cause these symptoms. The government announced yesterday that they will be stepping up their testing programme and so these facts will emerge before too long. Until they do we will

not be able to calculate accurate sickness or mortality rates from Covid-19 because we do not have an accurate denominator.

The UK Government's strategy aims to slow the spread of the virus rather than prevent it altogether. It is unlikely that spread can be prevented until there is a vaccine and that could take 18 months. The reason why this helps is that our health services will not be overwhelmed with demand to provide life-saving support to the small proportion of people who meet this virus and become very seriously ill. If we slow the rate fewer people will need this help at any one time. The aim of this policy is to enable herd immunity to develop in a controlled way because that is the only way we can bring this outbreak to a close until a vaccine emerges.

Understanding this matters because it means that we are better able to protect ourselves

And it suggests that alongside following all government's advice to help slow the spread of the virus, the most important thing we should be doing is boosting our immune systems. Doubtless supplements and herbs which are thought to boost immunity are flying off the shelves at the moment for that reason, but they may or may not work.

What is not widely appreciated by the public and what is not being said by the government because the research is not widely known and accepted by the medical profession is that an important dampener of the immune system is fear and panic. It is likely for example that the Spanish flu after the first world war was so dangerous, and particularly to young men, because the level of PTSD – post traumatic stress disorder – in the population was very high. We don't know this for sure and will not be able to find out in retrospect but given what we now know about fear and the immune system that is very likely.

There is plenty of fear about at the moment and not much being offered in the way of advice and support about how to calm the nervous system. Many people know ways to do this intuitively:- listening to music, singing, walking in green spaces. Others have been taught in mindfulness groups or Yoga classes or a myriad of other approaches like Emotional Freedom Technique (EFT or tapping). For most of these approaches there is scientific evidence to show that they work to calm the nervous system, that they enhance learning and creativity and boost the immune response. One approach with an evidence base not much known about is visualisation of the immune system functioning under self-hypnosis. Ensuring you have enough sleep is another evidenced way of enhancing immunity.

Many people have already learnt one or more of these skills. People who have this knowledge and skill should be using their skills now and practicing as much as they

can. Some people prefer to learn in groups, others individually, some self-directed on line and some from teachers. It is difficult for teachers to teach these skills to others now that groups are closed, but it is possible for those who know how to do them to practice themselves. And on-line classes and webinars are appearing for many of these approaches. Some practitioners are also teaching one to one on skype. There are also Apps which can be downloaded. Some children are being taught some of these skills at school in programmes like .B. Now that they are going to be at home all the time perhaps they might be able to show these to their parents.

One area of research which is not being much talked about at the moment is that positive social connectedness is an important enhancer of the immune system. People who are getting together to create WhatsApp groups in their local communities or setting up organisations like CovidMutualAid probably know, intuitively, that it is important to counter the inadvertent fear of others that is created when we are asked to keep away from other people. Self-isolation when we are ill, at risk of illness or just plain frightened, cuts us off from the beneficial effects of other human beings. Undoubtedly social media and internet connectedness can fill that gap to some extent and we should all be exploiting those resources now. And for those of us self-isolating at home with friends or family, trying to ensure that relationships are positive and supportive is important. At the same time we need to remember that it is difficult to learn new skills when anxious or afraid. So the elderly who are not connected into social media already may need help to do so.

If we do not develop herd immunity to this virus because the isolation policy suppresses rather than controls the spread, then the outbreak will re-emerge as restrictions are lifted and we will see more peaks in the infection. That is why the government did not close schools straight away. Controlled exposure is a good public health policy. If we add to this as many activities which boost immunity as possible we will increase the number of people who develop immunity without illness or only a mild infection. There will then be a substantial number of people who can keep services running and look after those who are getting ill as the outbreak comes to a close and we all get back to normal.

Top Tips for boosting natural resistance to viral infections

- Take notice of how you feel - be kind to yourself and others – have patience
- Stay in touch with people who calm you down. Use the telephone or social media. Avoid those who make you anxious
- Regulate your nervous system for a period of time each day with things that work for you. People are different and not everything works for everyone.

These might be

- Meditating or doing mindfulness practice
- Mindful movement like Yoga or Tai Chi – something that gets you out of your mind into your body
- Getting enough sleep efficient sleep (< 7 >8 hrs) Sleep hygiene
- Self-hypnosis and guided imagery – thinking about your immune system
- Emotional Freedom Technique or tapping
- Listening to or making music especially singing
- Walking in green spaces or near water

If these aren't possible other things that are known to reduce stress are

- Laughing
- Breathing deeply
- Noticing the unusual and positive things that have happened in the day and recalling them before sleep.