Keeping yourself free from COVID-19, flu and other respiratory infections this winter

When, where, how - a practical guide

DEC 2022
The risk of Respiratory Tract Infection this winter...

Preventing spread of Respiratory Tract Infections such as COVID-19, influenza (flu), Respiratory Syncytial Virus (RSV) and Cold viruses will be very important this winter. Partly we will be encountering new strains of these viruses for which we have limited immunity. Also we need to "do our bit" to reduce pressure on our health services.

During October 2022 saw another wave of COVID-19 infection, with daily rates rising to 2 million. Although rates have fallen again, it is likely we will have further waves during the winter season. While deaths due to COVID-19 have declined since 2020, they are still higher than those due to Flu and Pneumonia.

After two winters of low influenza rates, it is reported levels are likely to be much higher this winter. RSV, a common winter virus, is rising in young children. Common colds due to rhinovirus and other viruses are circulating widely.

Although a COVID-19 infection may be mild, flu – and sometimes also COVID-19 -can be very debilitating and unpleasant. For some it can be serious, requiring hospitalization, and can even be fatal. Since we cannot predict who is likely to become severely ill (apart from those with underlying conditions that make them more susceptible to infection), our best option is to avoid getting infected if we can.

Our Practical Guide gives advice on the habits we need to adopt, as part of daily life routine, to reduce the risk of catching a respiratory infection or spreading it to someone else. The information is presented in a way that will build your understanding of how these viruses spread and enable you to adapt your behaviour to suit your individual need and lifestyle - and adapt to changes when they happen.

Hygiene in public spaces as well as at home

A key issue highlighted by COVID-19 is the importance of hygiene, in our shared use of public spaces (schools, workplaces, supermarkets, public transport, leisure settings etc). After lockdown, facilities had to implement strategies to make them “COVID Secure”, but fundamentally this depends on whether the public using these facilities practise effective hygiene. The basic principles of spread of respiratory infection are the same, whether at home or in a public space.

By understanding when, where, how to Practise Hygiene at home, we can understand when, where and how to Practise Hygiene in public spaces.
The most important thing to understand is that infected people are the source of respiratory viruses.

If someone has a respiratory infection:

Virus particles will spread from the mouth or nose when coughing, talking loudly, shouting and singing. This involves:

- large droplets of infected mucous that travel only short distances.
- tiny aerosol particles that can travel distances greater than 2-3 metres.
- airborne virus particles settling onto surfaces we touch.

Virus particles can get onto hands if they touch our mouth, nose or eyes – and can be transferred to our clothing.

People can become infected:

- by inhaling airborne particles.
- by touching the mouth, eyes or lining of the nose with hands contaminated from touching contaminated surfaces etc.

Note:

- We may be infected and infectious to others, even if we are not feeling ill. That is why we need to Practise Hygiene as part of our daily life routine.
- It is impossible to "rid" an occupied space of COVID or flu virus particles because, if someone who happens to be infected then enters that space, the virus will immediately start to spread again via hands via air, hands and surfaces.
- Respiratory viruses cannot live and breed outside the human body, but can survive on hands, surfaces and in droplets and aerosols long enough to cause infection if transferred to another person.
By looking at how respiratory viruses are spread, we can see there are 5 places where we need to Practise Hygiene, to prevent further spread.
Here is a checklist of the 5 places where we need to Practise Hygiene to reduce the spread of respiratory infections and the actions we need to take, in order to prevent spread of infection.

<table>
<thead>
<tr>
<th>Checklist for cleaning or intervention</th>
<th>Decontaminate by*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands</td>
<td>Handwashing with soap, followed by thorough rinsing under running water or use alcohol hand sanitizer if there is no access to handwashing facilities</td>
</tr>
<tr>
<td>Surfaces touched by hands</td>
<td>Clean with detergent, then disinfect as directed, or use a disinfectant cleaner</td>
</tr>
<tr>
<td>Eating and drinking utensils</td>
<td>Machine dishwash, or clean with a cloth in hot soapy water, then rinse under clean running water</td>
</tr>
<tr>
<td>Cleaning cloths</td>
<td>Immediately after use rinse in hot soapy water, disinfect as directed and dry thoroughly</td>
</tr>
<tr>
<td>Air</td>
<td>Keep 2m away from infected person</td>
</tr>
<tr>
<td>Social distancing</td>
<td>Make sure enclosed spaces are well ventilated</td>
</tr>
<tr>
<td>Ventilation</td>
<td></td>
</tr>
<tr>
<td>Mask wearing</td>
<td>Wear a well fitting mask, which has at least 3 layers of material</td>
</tr>
</tbody>
</table>

Notes:

Obviously, in daily life – it is not feasible to decontaminate contact surfaces every time we touch them. However, just knowing these surfaces contribute to spreading infection acts as a prompt to practise good hand hygiene, to ensure you do not pass infection to others, or they to you.
Maximizing protection against infection – The Swiss Cheese effect

It is important to realize that the “when, where, how” approach is not a set of “hygiene tips”, it is a “system” where behaviours and actions, like social distancing, mask wearing, ventilation and hand and surface hygiene, work together to minimize risk of exposure to respiratory viruses.

No single hygiene behaviour or practise is 100% effective.

The “Swiss Cheese” model shows how this works. Each ‘cheese slice’ is a behaviour or action everyone can take. The holes show that no individual barrier is 100% effective. The more of the behaviours and actions we adopt, the smaller the risk becomes of being infected. The Swiss Cheese model also shows how these must be a combined effort. Failing to Practise Hygiene affects others, both at home and in public places.

Understanding Risk

During the pandemic, reports showed some hygiene practises (handwashing or mask wearing) were more effective than others. Understanding “relative risk” is difficult, even for experts. Advice is confusing if it is not clear cut - “this is risky – but this is not”. There was a tendency to believe if Government told us, for example, to isolate at home or wear masks, this was because not doing so was risky – which is correct. Conversely, when Government said it was no longer mandatory, we tended to assume there was no longer a risk – which is incorrect. Government instructions were relaxed when it was assessed that the level of viruses and infection circulating in the community, and thus infection risk, was low enough to let people make their own decisions according to their situation.

During the winter months, as respiratory infection risks increase, wearing masks in crowded public spaces is worthwhile, to reduce the risk of being infected.

Vaccination

One of the most effective ways to protect against infection and reduce spread in the community, during the winter when infection rates are higher, is to be vaccinated against COVID-19 and influenza.
To reduce virus spread – the other things to understand and consider

This “when, where, how” Practical Guide works to reduce spread of all respiratory infections including flu, COVID, Respiratory Syncytial Virus and cold viruses.

Scientific data suggest colds are more likely to be spread via hands and surfaces, compared with flu and COVID, which are more likely to spread via airborne routes. As we do not know when and which virus we might come across during our daily lives, we need to adopt the whole system of behaviours and actions, rather than picking and choosing at different times or in different situations.

The Practical Guide sets out the key actions that reduce the spread of respiratory infections, based on current scientific understanding. These are not the only actions. For example it is possible respiratory infections are occasionally spread by touching clothing worn by an infected person, but the risk is small.

Make it easier to Practise Hygiene behaviours

If we make it easier to Practise Hygiene, we are more likely to comply with hygiene advice. Conversely, if there are barriers to action, we will not:

• Although handwashing and hand sanitizers are equally effective if performed or used correctly, carrying a hand sanitizer around increases the likelihood of practising hand hygiene in places where there is no ready access to a handbasin.
• The toilet is a place multiple people use regularly whether in a household, school, office or other public setting. Fixing a hand sanitizer dispenser on the toilet entrance door at home - as we now do in public spaces - encourages sanitizing of hands before entering, thereby reducing the risk of spread of infection via common touch surfaces such as door, tap and flush handles, toilet seats etc.
• The most likely place to become infected is from another infected person, in our home.

When not to Practise Hygiene

There is still a belief ‘hygiene is synonymous with cleanliness’ aimed at eradicating dirt – dirt being inappropriately regarded as the main source of harmful microbes. This belief prompts us to practise routine cleaning behaviours on surfaces that pose little infection risk. In a recent poll, 80% and 72% respectively of people agreed that regular deep cleaning and using a disinfectant for routine cleaning, are important for preventing spread of COVID-19 infection. This idea has been reinforced by images of public health workers spraying and fogging environmental surfaces in public spaces, believing this would make them “COVID Secure”.

Since infected people are the source of norovirus, it is impossible to “rid” an occupied space of virus particles. The most effective way to protect ourselves is by practising good hygiene at the Key Moments where there is greatest risk of spread, to prevent direct contact with virus particles.

The fact is that “if we are not exposed to the virus, we cannot be infected”.

© Content International Scientific Forum on Home Hygiene