

GENERAL EYE HEALTH



EYE HYGIENE AND VIRAL TRANSMISSION

With the current coronavirus (COVID-19) pandemic at the forefront of everyone's mind and cold and flu season fast approaching, now is the time to be reminded of the importance of good hygiene practices.

Interestingly, many informative articles overlook the importance of good eye hygiene. Read on to find out how your eyes are a portal for infectious diseases and how proper care can reduce the risk of viral infection.

What is a virus and how does it cause disease?

A virus is a tiny infectious agent made up of little more than a string of genetic material and a protective protein coat. Outside of a living cell, a virus is dormant and incapable of reproducing. However, if a virus successfully invades a host cell it can reprogram, or 'hijack', the cell's machinery to produce copies of itself.¹ Viruses can infect the cells of all biological organisms and are responsible for many diseases that affect humans, including the flu, the common cold, conjunctivitis and even COVID-19.

Viruses make us sick by disrupting the function of, or killing, cells in our body. Disease symptoms occur because of this cellular damage, as well as the inflammation that occurs when the host's immune system recognises the infection and fights back. Unfortunately, many viruses have found ways to hide from the immune system, slowing clearance and prolonging disease.² Thus, the best time to kill a virus is **before** it enters the body.

How is a virus transmitted from person to person?

Before a virus can cause a disease, it must first enter the body of its target host. The virus may be picked up via direct contact with infected droplets (e.g. kissing) or indirect contact (i.e. through touching droplets from a cough, sneeze or even tears that have been left behind on a surface). If infected droplets come in contact with a mucous membrane like the eyes, nose or mouth, the virus can then enter your body and attack your cells.

Viruses can be contagious even when the infected person has no symptoms and they can survive outside of the human body for some time. This means you can pick up a virus even when there are no signs that someone around you was sick. Therefore, the most effective way to prevent indirect viral transmission is to ensure good hygiene practices.

Six eye hygiene practices to reduce your risk of infection

You should practice the below steps year-round to protect yourself (and others) from a viral (or bacterial/fungal/parasitic) infection.

1. Wash your hands regularly

Humans are a pretty tactile bunch – we like to touch *everything*. Unfortunately, many viruses can survive for long periods outside the body (hours to days), particularly on hard surfaces like plastic and stainless steel. Every time you touch a communal surface, you risk picking up an infection. Viruses and bacteria can also be transferred from preparing and eating food, treating a cut or wound, using the toilet, handling animals and touching waste.³

Washing your hands regularly and thoroughly with soap and water can kill viruses and bacteria on the surface of your skin. Ideally, you should lather and scrub for at least 20 seconds every time you come in contact with a possible contaminant, but we know this isn't always possible. That's why it's good to have some alcohol-based hand sanitiser to use throughout the day when you can't access a sink.

2. Avoid touching your face

Did you know the average person touches their face up to 23 times every hour?⁴ Of these contacts, approximately 60% involve the eyes, nose and mouth.⁵

Each time you touch your eyes, nose or mouth with dirty hands, you're at risk of getting a virus, or infecting another person with your virus! In the interest of yourself and others, it's best to consciously avoid touching your face whenever possible, particularly in public places.

3. Stay home if you have symptoms of an infection

If you're feeling unwell and have symptoms of an infection, the most effective way to reduce spread is to **stay at home**.

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If you need medical care, it's best to call ahead and discuss your symptoms. This is particularly important if you suspect you may have a highly contagious viral infection, such as COVID-19. The clinic can then recommend whether you need to be seen. Your doctor may even be able to provide advice over the phone or via video consultation, removing the risk of exposing others to a possible infection.

If you are sick and think you might have COVID-19, you can also check your symptoms using healthdirect's COVID-19 symptom checker at healthdirect.gov.au/symptom-checker/tool.

4. Avoid rubbing your eyes

We're all guilty of rubbing our eyes throughout the day, whether it's in response to stress, tiredness or hayfever. Rubbing stimulates tear production, which provides temporary relief by lubricating the eyes and removing irritants. However, rubbing your eyes with dirty hands can put you at risk of infection.

Conjunctivitis is a common infection of the membrane that lines the eyelids and the white part of the eye. Conjunctivitis can be caused by viruses or bacteria – both are highly contagious and can be transmitted from person to person through direct or indirect contact with fluids from the eye. Conjunctivitis is frequently associated with upper respiratory infections including the common cold, the flu and even COVID-19. If you or your child are suffering from conjunctivitis, it's important to stay at home to prevent viral transmission.

5. Take care when using makeup

Now that you know how easily viral and bacterial infections can be spread through contact with the eyes, the following advice should come as no surprise:

- Never share makeup (face or eye) with anyone else.
- Only test makeup products with single-use applicators and wands – never use a cosmetic brush someone else has used.
- Always dispose of cosmetic products within the recommended 'Period After Opening' (indicated on the packaging by a small symbol of a jar with numbers inside – e.g. 12M = 12 months).



Above: Artists impression of how quickly a virus can transmit via human connection. Image credit: Orbon Alija

- Replace makeup after you have been sick or had an eye infection.
- Avoid sharing face clothes, face towels and other facial cleansing products with others.

6. Clean pillowcases weekly

Pillowcases are a breeding ground for viruses – after all, they come into direct and prolonged contact with fluids from your eyes, mouth and nose nightly. For this reason, you should wash your pillowcases at least once a week.

Besides lowering your risk of viral infection, you might be surprised to see how much your skin thanks you for this one too! By regularly washing your pillowcases, you'll also be limiting repeat exposure to bacteria, oils and dirt, which can reduce acne breakouts.⁶

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