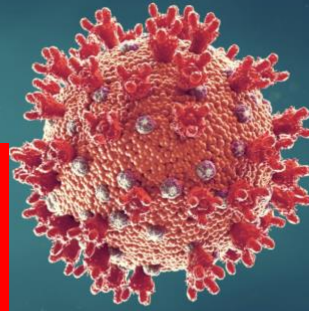


Find out everything you need to know about preventing, isolating and treating coronavirus and COVID-19.



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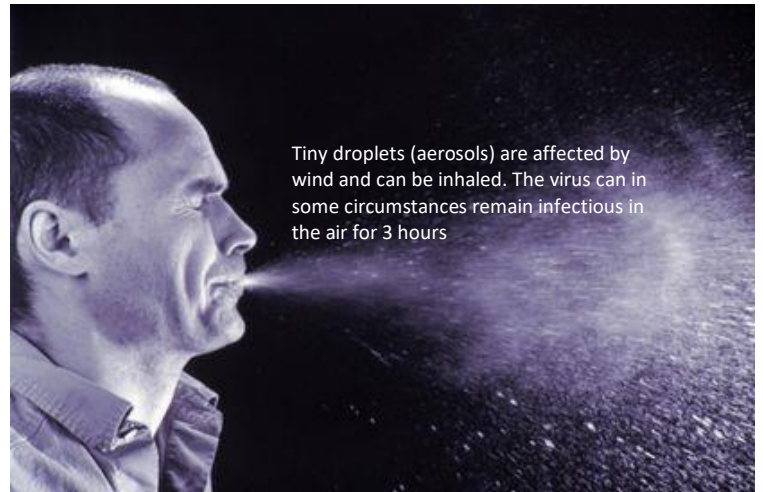
 Nuffield Health  
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- [Route of Transmission](#)
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## Route of Transmission

The virus mainly spreads from person to person. This usually happens when an infected person coughs, sneezes, or talks near other people. It is possible to get sick if you touch a surface that has the virus on it and then touch your mouth, nose, or eyes.

This is similar to how the flu spreads, but the virus that causes COVID-19 spreads more easily.



A person can be infected, and spread the virus to others, even without having any symptoms. This is why keeping people apart is one of the best ways to slow the spread.

Droplets usually cannot travel more than 6 feet.

When you cough you are raising the virus's reproduction number,  $R_0$ .

The reproduction number is the crucial determinant of its success. It is the number of extra people each newly infected person passes it on to. If it is more than 1, a virus proliferates. The virus has a crown of spikes, At the point of entry, perhaps in your nostril, one of those spikes fits inside a receptor on a cell, like a lock in a key. And, just like a key, it opens the door. The virus is inside, and it is about to take control.

For most people, symptoms will get better within a few weeks. But in others, COVID-19 can lead to serious problems like pneumonia, not getting enough oxygen, heart problems, or even death. This is more common in people who are 65 years or older or have other health problems like heart disease, diabetes, lung disease, cancer, or obesity.

## Covid Infection

*The more severe the infection the more infectious the patient is*

### What are the presenting symptoms?

- Fever 80% and cough 80% (may be absent)
- Fatigue & muscle pain 50%
- Breathlessness 44%
- Headaches 34%
- Diarrhoea and other gut symptoms 8%
- Loss of taste and smell

Symptoms in children with infection appear to be uncommon, although rarely some children with severe COVID-19 have been reported

## COVID-19 can be divided into three stages

### Stage 1:

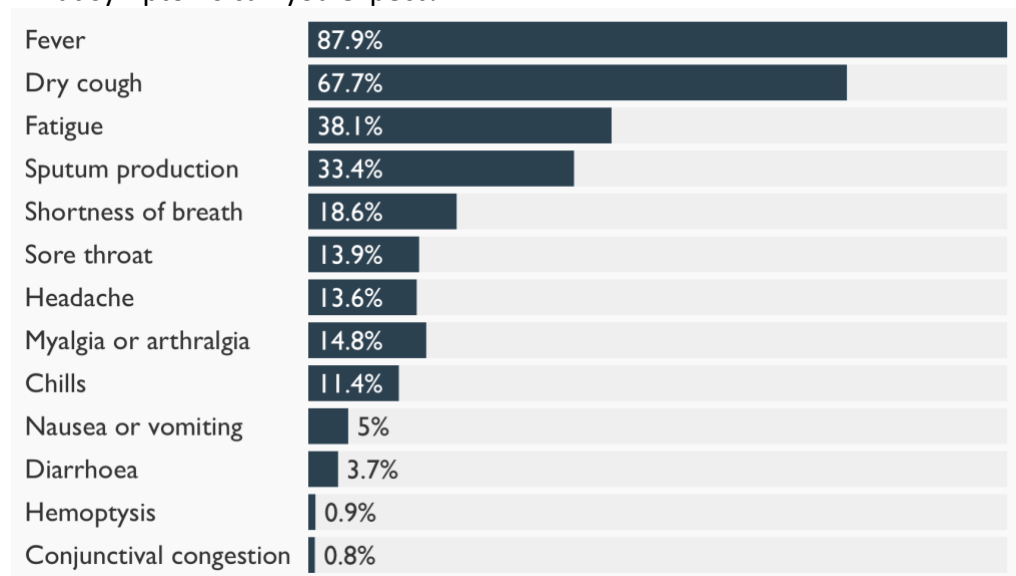
Most estimates suggest that the “incubation period” — the time between catching the virus and beginning to have symptoms of the disease — range from two to 14 days, most commonly around five days.

Up to 50% of cases may be transmitted during this stage – i.e. before the patient knows they are infected – they are most infectious 2 days before symptoms start

### Stage 2:

Non-severe symptomatic period, generally lasts about a week

What symptoms can you expect?



*At least 80% of patients do not go on to develop stage 3 (it is just like having a bad cold)*

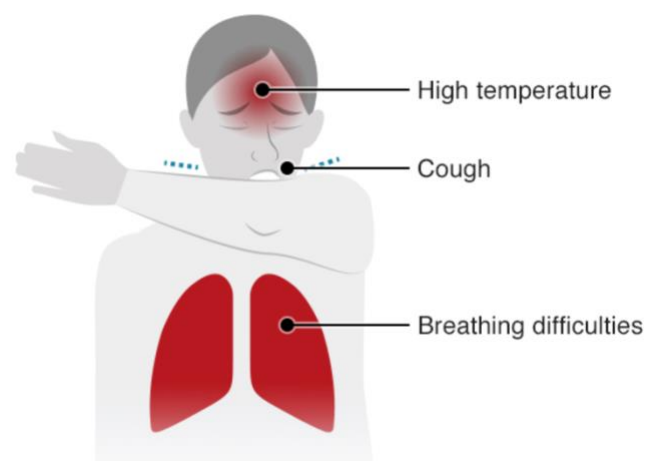
### Stage 3:

Severe stage with complications; 15% severely unwell, 5% critically unwell, mortality rate 1% to 3%. The average time from the start of symptoms to developing critical illness is seven to eight days.

*Risk factors for going on to stage 3 include*

- Age (>80)
- Male
- Obesity
- Other illnesses (diabetes, high blood pressure, chronic lung disease – not mild asthma)
- Social deprivation.
- Perhaps a genetic disposition

**The reasons why men might be at greater risk are unclear.**



## Stage 3 may include

### Pneumonia

Severe pneumonia is a secondary infection, these are some of the things to watch out for

#### Adolescents or adults

- Fever or suspected respiratory infection **plus**
- Respiratory rate >30 breaths/min **or**
- Severe respiratory distress

#### Children

- Cough or difficulty breathing **plus**
- Central cyanosis (blue lips and extremities) **and/or**
- Severe respiratory distress (e.g., grunting, very severe chest indrawing) **and/or**
- Signs of pneumonia with a general danger sign
  - Inability to breastfeed or drink **or**
  - Lethargy or unconsciousness **or**
  - Convulsions
- Other signs of pneumonia may be present, including:
- chest indrawing, and fast breathing (age < 2 months, ≥ 60 breaths/min; age 2-11 months, ≥50 breaths/min; age 1-5 yrs, ≥40 breaths/min)

### When to call Doctor

Use the Coronavirus symptom checker to help> Click the button below to open the tool in a web page

- Significantly breathless
- Chest pains
- You become pale and clammy
- Muddled or confused.
- Unable to complete full sentences or get out of bed,
- There is a small risk of rapid deterioration, usually day 5-8

[Click here to go to symptom checker](#)

# How is mild coronavirus disease 2019 (COVID-19) managed?

## Home care

- Stay home.
- Avoid sharing personal items.
- Wear a facemask, if available.,
- Wash hands with soap and water for at least 20 seconds.
- Use hand sanitizer with at least 60% alcohol.
- Avoid touching eyes, nose, and mouth.
- Clean surfaces with cleaning sprays or wipes.
- Avoid unnecessary visitors.
- Cough – avoid lying on back
- Temperature – best not to use ibuprofen or aspirin – there was a small study in France to suggest that this may be harmful (but the evidence for this is weak)
- Keep the room cool
- Try and relax

## Home monitoring and resolution of symptoms

- Patients can leave home after 3 things have happened:
  - Fever has been absent for at least 72 hours (i.e., 3 full days of no fever without use of fever-reducing medicine **plus**)
  - Other symptoms have improved (e.g., cough or shortness of breath have improved) **plus**
  - At least 7 days have passed since symptoms first appeared.
  -

## Stress and anxiety

- It's normal to feel anxious or worried about COVID-19. You can take care of yourself, and your family, by trying to:
  - Take breaks from the news
  - Get regular exercise and eat healthy foods
  - Try to find activities that you enjoy and can do at home
  - Stay in touch with your friends and family members
  - Keep in mind that most people do not get severely ill from COVID-19.
  - It helps to be prepared, and it's important to do what you can to lower your risk and help slow the spread of the virus.
  - But try not to panic.

## Exacerbation of symptoms

Patients should seek medical attention immediately if they begin to experience trouble breathing, have persistent chest pain or chest pressure, experience confusion or inability to arouse, or their lips or face turn blue.

## What should I do if someone in my home has COVID-19?

If someone in your home has COVID-19, there are additional things you can do to protect yourself and others:

- Keep the sick person away from others – The sick person should stay in a separate room and use a different bathroom if possible. They should also eat in their own room.
- Stay away from pets in the house until they are better.
- Have them cover their face – The sick person should cover their nose and mouth with a cloth mask when they are in the same room as other people. If they can't use a face cover, you can help protect yourself by covering your face when you are in the room with them.
- Wash hands – Wash your hands with soap and water often (see above).
- Clean often – Here are some specific things that can help:
- Wear disposable gloves when you clean. It's also a good idea to wear gloves when you have to touch the sick person's laundry, dishes, utensils, or trash.
- When you do the sick person's laundry, avoid letting dirty clothes or bedding touch your body. Wash your hands and clean the outside of the washer after putting in the laundry.
- Regularly clean things that are touched a lot. This includes counters, bedside tables, doorknobs, computers, phones, and bathroom surfaces.
- Clean things in your home with soap and water, but also use disinfectants on appropriate surfaces.

## How long does a patient stay infectious?

How long a person remains infectious is also uncertain. The duration of viral shedding is variable; there appears to be a wide range, which may depend on severity of illness. Most secondary infections occur in household contacts.

The risk of transmission with more indirect contact (e.g., passing someone with infection on the street, handling items that were previously handled by someone with infection) is not well established and is likely low.

There is no evidence suggesting animals (including domesticated animals) are a major source of infection in humans.

**Immunity and risk of reinfection** — Antibodies to the virus are induced in those who have become infected. Preliminary evidence suggests that some of these antibodies are protective, but this remains to be definitively established. Moreover, it is unknown whether all infected patients mount a protective immune response and how long any protective effect will last.

## Testing

**An antigen test** detects the presence (or absence) of an antigen. This is a structure within a virus that triggers the immune system's response to fight off the infection. It can be detected before antibodies are made. We offer this test by swab

**An antibody test** can detect if a person has had coronavirus before and has since recovered.



Most patients who recover from coronavirus have been found to produce antibodies, but it is not yet known if an individual with a positive result showing presence of IgG levels following being infected with SARS-CoV-2 will be protected, either fully or partially from future infection, or for how long protective immunity may last.

## What about pregnancy?

Pregnant people do **not** seem more likely than other people to get the infection. They also do not seem more likely to have a higher risk of serious problems (like pneumonia) than other people of similar age.

Most people who get COVID-19 during pregnancy recover before having their baby.

Pregnant people who get COVID-19 might have an increased risk of preterm labour and birth.

Early evidence has shown low rates of peripartum transmission and uncertainty concerning in utero viral transmission.

SARS-CoV-2 has **not** been detected in breast milk

## Coronavirus Disease 2019 (COVID-19) in Children

Relatively few cases have been seen in children thus far; in China, only about 2.4% occurred in those under 19 years of age.

Most cases in children are mild, and treatment consists of supportive care.

The data from China showed that most children with COVID-19 recovered within 1-2 weeks after the onset of symptoms - severe illness has been reported in 2.5%

The following conditions indicate a greater likelihood of severe disease:

- Breathless:
  - Respiration rate of >50 breaths/min in children aged 2-12 months
  - >40 breaths/min in children aged 1-5 years
  - >30 breaths/min in patients older than 5 years old (after excluding the effects of fever and crying).
  - Persistent high fever for 3-5 days
- Poor mental response, lethargy, disturbance of consciousness, and other changes of consciousness.


Whilst coronavirus is infectious to children it is rarely serious. If your child is unwell it is likely to be a non-coronavirus illness, rather than coronavirus itself.

Whilst it is extremely important to follow Government advice to stay at home during this period, it can be confusing to know what to do when your child is unwell or injured.

Remember that NHS 111, GPs and hospitals are still providing the same safe care that they have always done. Here is some advice to help:


The table below gives very sensible advice for the Royal College of Paediatrics



 <p>RED</p>	<p>If your child has any of the following:</p> <ul style="list-style-type: none"> <li>Becomes pale, mottled and feels abnormally cold to the touch</li> <li>Has pauses in their breathing (apnoeas), has an irregular breathing pattern or starts grunting</li> <li>Severe difficulty in breathing becoming agitated or unresponsive</li> <li>Is going blue round the lips</li> <li>Has a fit/seizure</li> <li>Becomes extremely distressed (crying inconsolably despite distraction), confused, very lethargic (difficult to wake) or unresponsive</li> <li>Develops a rash that does not disappear with pressure (the 'Glass test')</li> <li>Has testicular pain, especially in teenage boys</li> </ul>	<p>You need urgent help:</p> <p>Go to the nearest A&amp;E department or phone 999</p>
 <p>AMBER</p>	<p>If your child has any of the following:</p> <ul style="list-style-type: none"> <li>Is finding it hard to breathe including drawing in of the muscles below their lower ribs, at their neck or between their ribs (<b>recession</b>) or <b>head bobbing</b></li> <li>Seems dehydrated (dry mouth, sunken eyes, no tears, drowsy or passing less urine than usual)</li> <li>Is becoming drowsy (excessively sleepy) or irritable (unable to settle them with toys, TV, food or picking up) - especially if they remain drowsy or irritable despite their fever coming down</li> <li>Has extreme shivering or complains of muscle pain</li> <li>Babies under 3 months of age with a temperature above 38°C /100.4°F</li> <li>Infants 3-6 months of age with a temperature above 39°C /102.2°F</li> <li>For all infants and children with a fever above 38°C for more than 5 days.</li> <li>Is getting worse or if you are worried</li> <li>Has persistent vomiting and/or persistent severe abdominal pain</li> <li>Has blood in their poo or wee</li> <li>Any limb injury causing reduced movement, persistent pain or head injury causing persistent crying or drowsiness</li> </ul>	<p>You need to contact a doctor or nurse today.</p> <p>Please ring your GP surgery or call NHS 111 - dial 111</p> <p>The NHS is working for you. However, we recognise during the current coronavirus crisis at peak times, access to a health care professional may be delayed.</p> <p>If symptoms persist for 4 hours or more and you have not been able to speak to either a GP or 111, then take your child to the nearest A&amp;E</p>
 <p>GREEN</p>	<p>If none of the above features are present</p> <ul style="list-style-type: none"> <li>You can continue to provide your childcare at home. Information is also available on NHS Choices</li> <li>Additional <b>advice</b> is available to families for coping with crying of well babies</li> <li>Additional <b>advice</b> is available for children with complex health needs and disabilities.</li> </ul>	<p>Self care</p> <p>Continue providing your child's care at home. If you are still concerned about your child, call NHS 111 - dial 111</p>

## How do I know if it is Covid, common cold or the flu?

The symptoms can be very similar, the table below shows you some of the differences

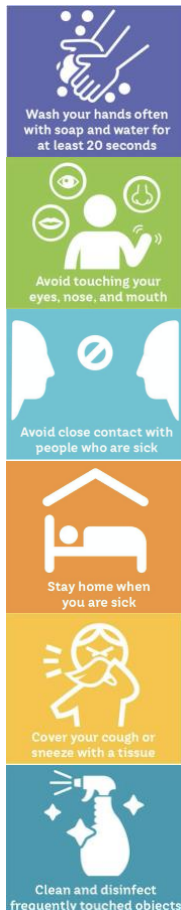
<b>SYMPTOMS</b>		<b>COVID-19</b>	<b>COLD</b>	<b>FLU</b>
		Symptoms range from mild to severe	Gradual onset of symptoms	Abrupt onset of symptoms
<b>Fever</b>		Common	Rare	Common
<b>Cough</b>		Common	Common	Common
<b>Sore Throat</b>		Sometimes	Common	Common
<b>Shortness of Breath</b>		Sometimes	No	No
<b>Fatigue</b>		Sometimes	Sometimes	Common
<b>Aches &amp; Pains</b>		Sometimes	No	Common
<b>Headaches</b>		Sometimes	Common	Common
<b>Runny or Stuffy Nose</b>		Sometimes	Common	Sometimes
<b>Diarrhea</b>		Rare	No	Sometimes, especially for children
<b>Sneezing</b>		No	Common	No

## Prevention

The virus can also persist on surfaces to varying durations and degrees of infectivity - up to 72 hours on some surfaces despite decreasing infectivity over time.

On plastic and stainless steel, of the kind that looks so hygienic in public lavatories, viable virus was still found three days later. On cardboard, nothing lasted a day. Newspapers should be fine because the ink kills the virus

General measures for prevention of viral respiratory infections include:



Handwashing with soap and water for at least 20 seconds. An alcohol-based hand sanitizer may be used if soap and water are unavailable.

Individuals should avoid touching their eyes, nose, and mouth with unwashed hands.

Individuals should avoid close contact with sick people.

Sick people should stay at home (e.g., from work, school).

Coughs and sneezes should be covered with a tissue, followed by disposal of the tissue in the trash.

Frequently touched objects and surfaces should be cleaned and disinfected regularly

### Face masks and Handwashing

In a 2020 study on the efficacy of facemasks in preventing acute respiratory infection, surgical masks worn by patients with such infections (rhinovirus, influenza, seasonal coronavirus [although not SARS-CoV-2 specifically]) were found to reduce the detection of viral RNA in exhaled breaths and coughs.

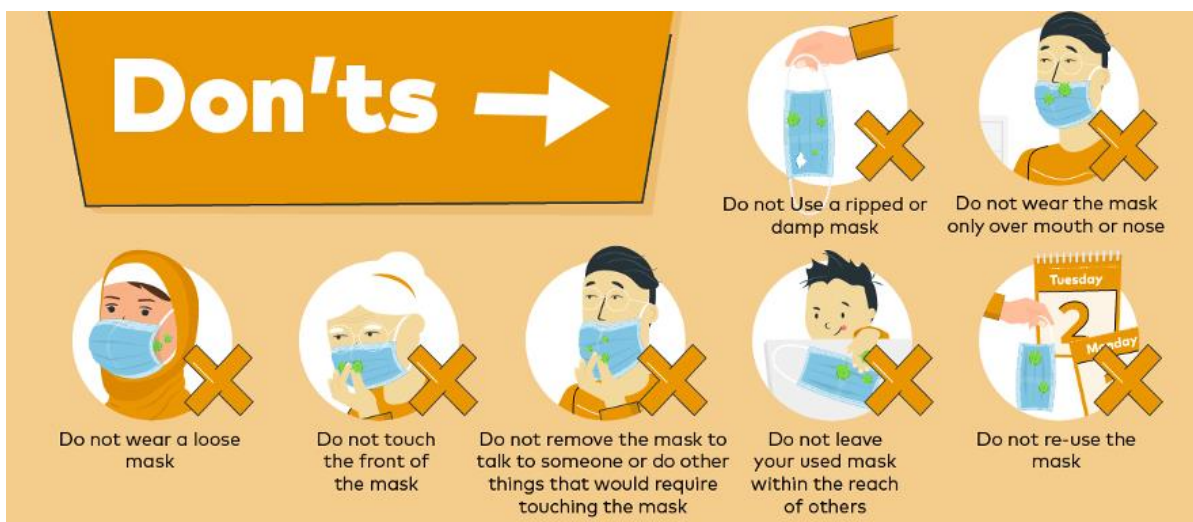
Face masks may well become compulsory – for example on planes or public transport This is largely to help cut down on the R value, i.e. limit the spread, as opposed to giving the individual wearing the mask any additional protection.

In fact, wearing a mask may increase your risk of infection

- Touching of mask and face
- False sense of security and reduction in social distancing and hand hygiene

# If you use a mask it is important to use it properly

Remember The most effective way to avoid contracting coronavirus is not a mask; it is regular hand washing and making sure you have not touched your eyes, mouth or nose if you have previously touched surfaces that someone else with the virus might previously have touched.



## Medication

As doctors we have very little treatments for viral infections

You may have seen claims of success of various treatments in the press or on social media

Unfortunately, there is little good evidence of anything that makes a significant difference

As doctors we use rigorous methods to assess the efficacy of any treatment. Small studies that have not been properly evaluated, or, anecdotal reports that are promoted as evidence are **not** good evidence

Here are some of the things you may have read about

### **Hydroxychloroquine and Chloroquine**

Hydroxychloroquine and chloroquine are widely used antimalarial drugs that elicit immunomodulatory effects and are therefore also used to treat autoimmune conditions (e.g., systemic lupus erythematosus, rheumatoid arthritis).

Recent studies have found no evidence that hydroxychloroquine, with or without azithromycin, reduced the risk of mechanical ventilation and that the overall mortality rate was increased with hydroxychloroquine treatment

NOT RECOMMENDED

### **Hydroxychloroquine plus azithromycin**

A small prospective study found no evidence of a strong antiviral activity or clinical benefit conferred by hydroxychloroquine plus azithromycin

A paper released on YouTube in France purporting to show benefit – but has been heavily criticised as an inadequate study

An increased 30-day risk of cardiovascular mortality, chest pain/angina, and heart failure was observed with the addition of azithromycin to hydroxychloroquine from an analysis of pooled data from Japan, Europe, and the United States.

NOT RECOMMENDED

### **Remdesivir**

The Lancet found no significant clinical benefit from use of the drug. However, while not statistically significant, the time to clinical improvement and duration of invasive mechanical ventilation were shorter in people treated with Remdesivir within 10 days after illness onset, compared to standard care.

The trial had to be stopped early due to lack of patients, which meant the trial was underpowered and the results are inconclusive.

Ongoing, bigger trials will confirm or refute these findings

MAY HELP RECOVERY, NOT ENOUGH EVIDENCE YET

## Shielding

The advice on shielding changes frequently and will continue to do so depending on ability to test and contact trace, levels of infection, development of effective treatments

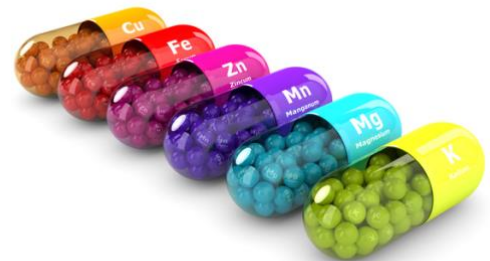
For this reason, we suggest that you use the link below for latest advice. Please click to be taken to the website



Guidance

**Guidance on shielding and protecting people who are clinically extremely vulnerable from COVID-19**

## How can I boost my immune system?



Supplements and products that claim to boost the immune system are commonplace, but.. you cannot “boost” your immune system through diet, and no specific food or supplement will prevent you catching COVID-19/Coronavirus. Good hygiene practice remains the best means of avoiding infection.

### **There is no evidence that supplements for most people are effective**

If someone is healthy and well-nourished, the immune system is balanced between its ability to recognise toxins, viruses and bacteria on the one hand, and making an inappropriate attack on the host's own body.

The only sure-fire method to boost the immune system is via vaccinations.

Diet plays an essential part in normal immune function, by ensuring that we have the necessary nutrients to allow the immune cells to work normally, if you have a healthy diet, additional vitamins are not necessary

It seems clear that exercise, stress, a healthy sex life and adequate sleep also affect the efficiency of the immune response.

Poor diet, too much alcohol, lack of exercise and smoking are likely to be harmful to how your immune system fights infections

[The Association of UK dieticians gives some sensible advice on diet](#)



## Dealing with Stress

The coronavirus (COVID-19) outbreak means that life is changing for all of us for a while. It may cause you to feel anxious, stressed, worried, sad, bored, lonely or frustrated. The NHS provides a very good resource for tips to help you cope

[Every Mind Matters](#) - expert advice and practical tips to help you look after your mental health and wellbeing.



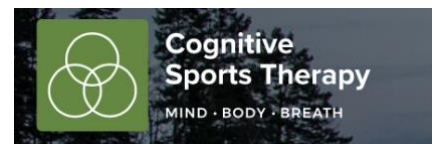
**Mindfulness** can be a very good technique that you can learn at home. Be Mindful is the only digital Mindfulness-Based Cognitive Therapy (MBCT) course. Our NHS-approved Pathway that has helped thousands of people to reduce their levels of stress, anxiety and depression and improve their mental wellbeing.

Click the link below

<https://www.bemindfulonline.com>



Claire Gilvray – one of the doctors at Cambridge Private Doctors is very much an expert in these fields of Medicine



She has an expertise in Cognitive Sports Therapy (CST), taking elements from psychotherapy (looking into your past), Cognitive Behavioural Therapy (CBT – looking at your present) and life coaching (looking at your future) and combines these with exercise, breath work, mindfulness and meditation in order to improve your mental strength and health.

See the link below, or request an appointment with her via our website


<https://www.cognitivesportstherapy.com>

## MythBusters

- While several drug trials are ongoing, there is currently no proof that hydroxychloroquine or any other drug can cure or prevent COVID-19
- Adding pepper to your soup or other meals DOES NOT prevent or cure COVID-19
- COVID-19 IS NOT transmitted through houseflies
- Spraying and introducing bleach or another disinfectant into your body WILL NOT protect you against COVID-19 and can be dangerous
- Drinking methanol, ethanol or bleach DOES NOT prevent or cure COVID-19 and can be extremely dangerous
- 5G mobile networks DO NOT spread COVID-19
- Exposing yourself to the sun or to temperatures higher than 25C degrees DOES NOT prevent the coronavirus disease (COVID-19)
- Being able to hold your breath for 10 seconds or more without coughing or feeling discomfort DOES NOT mean you are free from the coronavirus disease (COVID-19) or any other lung disease
- Drinking alcohol does not protect you against COVID-19 and can be dangerous
- The new coronavirus CANNOT be transmitted through mosquito bites.
- Ultra-violet (UV) lamps should not be used to disinfect hands or other areas of your skin
- Vaccines against pneumonia do not protect you against the new coronavirus
- If you are healthy, you only need to wear a mask if you are taking care of a person with suspected 2019-nCoV infection
- Wear a mask if you are coughing or sneezing
- Masks are effective only when used in combination with frequent handwashing with alcohol-based hand rub or soap and water.

**This leaflet contains general information about Covid-19 and treatments. The information is not a substitute to medical advice from you doctor's advice and should not be treated as such. You should never delay seeking medical advice, disregard medical advice, or discontinue medical treatment because of information in this leaflet.**

**Cambridge Private Doctors May 2020**

 01223 967995



enquiries@cambridgeprivatedoctors.co.uk