



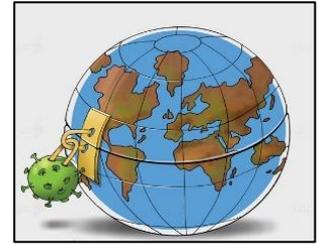
## AUGUST - SEPTEMBER 2020

A warm welcome to the Millhouse Community and to other readers.

In the July newsletter I wrote about the many unknowns about the future in these COVID times.

Covid-19 remains a mysterious virus. We are unsure whether having the infection will provide long-lasting immunity. We may react similarly to the common cold viruses (four are known coronaviruses) which vary in the immunity they stimulate, and we continue to remain susceptible to new infections, especially during the winter each year.

We know that vaccine testing has begun in several countries. The [University of Oxford](#) has carried out phase 1 & 2 trials, initially experimenting on a few volunteers, then a larger group of 1070. These trials have demonstrated the vaccine is safe for humans and that it triggers an immune response. Phase 3 trials on many thousands of people have now begun in South Africa and Brazil.



We have observed the insidious nature of COVID-19 which can easily breach quarantine measures and spread rapidly into the community, not just by aerosol action but also by surface contamination. Only by creating a secure 'quarantine island' - which we currently do not have - will we eliminate transmission of the virus brought in by oversea travellers. History reminds us that 100 years ago Motuihe Island was used effectively for this purpose.

We know that New Zealand has taken a huge economic hit which will have repercussion for years to come, and we must avoid the yo-yoing of lockdowns which are so detrimental to business.

We must remain vigilant, regularly washing hands, keeping social distances, wearing a mask in places of risk like shopping malls, supermarkets, and travelling on trains, buses and planes, and adopting nutritional practices that strengthen our immune system.

In this newsletter I want to continue to discuss strategies that can be used to survive a COVID-19 infection, especially for those with depleted immune system and those who suffer chronic disease. But first, the Millhouse News.

### MILLHOUSE NEWS



**BE KIND TO OUR RECEPTION AND NURSE TEAM** We recognise many are under stress at this time and are feeling frustrated and anxious, often experiencing broken, unrefreshing sleep. Please be kind to the Millhouse team when requesting an appointment or prescription, or enquiring about an investigation result. We are doing do the best we can in serving you.

**COVID SWABS** at 130 Millhouse are being carried out by our nurses in protective PPE gear. Please ring for an appointment if you have any respiratory symptoms; Reception will give you a booking time and you can park in the 130M carpark. Stay in your car when you arrive, ring Reception and a nurse will come and take the swab while you remain in the car.

**VIRTUAL CONSULTATIONS** The screen cameras, ordered months ago, have just arrived and we are now able offer video consultations. These can be requested through Reception at the time of booking an appointment. Near to the appointment time, your doctor will send an email with the video-link address for **doxy.me**, a secure telemedicine website, where your video consultation will take place.

**FOR REPEAT LONG-TERM PRESCRIPTIONS** our preference is that you use the [ManageMyHealth](#) patient portal rather than the Millhouse website or ringing Reception. The Patient Portal script request goes directly to your doctor and avoids delays and unnecessary time spent by Reception and nurses processing your request.

**DIGITAL PRESCRIPTIONS** All prescriptions are now processed electronically and can be sent directly to your chemist, avoiding the necessity of a visit to Millhouse to collect the script. This averts contact with unwell people. Please do indicate the pharmacy to which you wish the digital prescription to be sent.



**CERVICAL SMEARS & CHILDHOOD VACCINATIONS** are available during ALERT 3. Just ring Reception for a nurse appointment.

**REMEMBER DR AVANI** whom I introduced in the last newsletter. She is an experienced practitioner with a special interest in women's and children's health and complex medical disorders. Using a holistic approach that focuses on the root cause of illness, genetic predispositions, triggers, environmental factors, lifestyle and social influences, [Dr Avani](#) will guide you into possibilities to improve your health.

Dr Avani consults each Wednesday afternoon at 128 Millhouse.

### COVID-19

#### Glutathione

When I was a junior doctor, sadly, I treated a number who took a large overdose of paracetamol or Panadol. Within hours, these patients experienced increasing nausea and vomiting, and occasionally would be brought in comatose, with liver- and spreading organ-failure. If not treated immediately, paracetamol overdose floods the liver's detox pathways, with some of the drug being converted to a highly-toxic destructive chemical **NAPQI** ([N-acetyl-p-benzoquinone-imine](#)) which under normal circumstances would be removed by the body's glutathione. Glutathione is a sulphur-containing molecule found in all cells, and is made from the amino acids glutamine, cysteine and glycine which are found in sulphur-rich proteins such as beef, fish, poultry, especially eggs, garlic, onions and cruciferous vegetables (broccoli, brussels sprouts, cauliflower, kale, watercress and mustard greens).

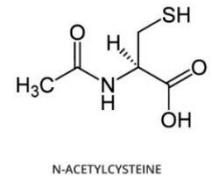


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Glutathione prevents damage to the cell by neutralising highly-reactive (free-radical) molecules which are produced by inflammation, toxic metals, and some chemicals such as paracetamol.

**N-acetyl cysteine (NAC)**

Doctors realised that if they could increase glutathione activity shortly after the paracetamol overdose, to neutralise NAPQI, they could prevent liver cell death. [N-acetylcysteine](#) (NAC) does just that. For more than 30 years NAC has been used in serious paracetamol overdose. It primarily stimulates glutathione synthesis, but can also act directly to promote detoxification, scavenge free-radicals directly (antioxidant action) and decrease inflammation. Studies have revealed no harmful maternal or foetal effects with NAC therapy. NAC has also been used in sufferers of fatty liver disease.



**Inflammation**



Inflammation is a biological response to harmful stimuli such as pathogenic microorganisms, damaged cells and toxic irritation, and is characterised by the outflowing of immune cells, changes in blood flow and production of cytokine protein mediators, which I have discussed in earlier COVID updates. A tooth abscess is an example of the body's inflammatory response to harmful bacteria in the gum; the toxic material is expelled and repair is initiated. While the inflammatory response is easily observed in a tooth abscess, tonsil or lung infection, in many diseases it may only be evident at a microscopic level even in situations of psychiatric illness.

**NAC in chronic airways disease**

The hallmark of asthma, bronchitis, and Chronic Obstructive Pulmonary Airways disease (COPD) is inflammation. NAC is both an antioxidant and a mucolytic which reduces the viscosity and the amount of mucus, allowing air to flow more freely throughout the lungs. In 2015 Italian researchers performed a [meta-analysis](#) of trials where patients were treated with NAC, and concluded that those taking NAC consistently had fewer episodes of chronic bronchitis and COPD.

**NAC in psychiatric illness**

A few years ago, I heard Professor Michael Berks of Melbourne University discuss the use of NAC in psychiatric illness. He reported that adverse chemical oxidative changes, dysregulation of nerve chemical transmission and elevated cytokines (indicating low levels of inflammation) had been observed in schizophrenia, depression, bipolar and obsessive-compulsive disorders. [Research](#) thus far suggests that NAC can reduce the cravings in cocaine and cannabis addiction and that its use as an adjunct therapy may improve outcomes in schizophrenia, depression, and bipolar cases where improvement has been slow.

**NAC in viral illness**

In the early 1990's a randomised trial was conducted on [sufferers of chronic disease](#), who did not have any lung issues, to see if NAC taken for six months could protect them from acute viral infections. compared with the placebo group. The researchers found the NAC was well-tolerated and resulted in a significant decrease in influenza-like illnesses, their severity and the length of time patients were confined to bed, especially during winter months. They commented that NAC prevented most flu-related symptoms, including running nose, sore throat, cough and general symptoms of headache, and muscle or joint pain. They recommended that NAC should be given to all sufferers of chronic illness and respiratory disease during the winter. Shortly after this study was published, researchers demonstrated that NAC could also [directly inhibit](#) the replication of the influenza A virus.

**NAC in COVID-19**

At this time there is no published data on the use of NAC, to prevent or treat COVID-19. Covid-19 infection enters the body through ACE receptors, which NAC appears able to block, then creates mayhem to which our immune system responds adversely with a cytokine storm. NAC is a mucolytic, reducing cough, running nose and throat soreness. Its RNA viral inhibitory and antioxidant action, as well as its ability to accelerate production of glutathione to quell the inflammatory storm, suggests that NAC should be considered for use in all chronic disease and especially Chronic Obstructive Pulmonary Disease. (Vitamin A and D are also able to stimulate the action of NAC.)

Best wishes for health and happiness in these COVID times.  
 Dr Richard J Coleman

**N-Acetyl Cysteine**

**Actions:**

- Precursor of glutathione
- Antioxidant
- Anti-inflammatory
- Chemical & heavy metal detox

**NAC a useful therapy in:**

- Liver Paracetamol overdose
- Fatty liver
- Lung Mucolytic -removes mucus
- Significant asthma & COPD
- Significant psychiatric disorders
- Nervous system - could be useful
- Viral infection & COVID-19

**Dose 600 - 1800mg daily**

**Side effects - well tolerated orally**  
*NAC is a nutritional supplement which can be purchased on-line, at a chemist or health food shop*

**Protective Nutrients for Covid & Influenza Prevention**

- Vitamin C 1gm x3 daily**
- Vitamin D 2000 - 5000iu daily**
- Zinc 20mg daily**
- Magnesium 400mg daily**
- Selenium 100microgms daily**
- Melatonin 2-4mg night**
- Quercetin up to 500mg daily**
- AND**
- N-AcetylCysteine 600mg daily**