Vitamin C - from scurvy to the common cold

The recent wedding of Prince William and Catherine Middleton, the now Duke and Duchess of Cambridge, has been celebrated around the world. However, this event may have had less significance for Australia had it not been for another event on the same day 241 years ago.

It was on the 29th of April 1770 that Captain James Cook's Endeavour first made landfall on mainland Australia. The place was Kurnell on the southern shores of Botany Bay. Cook claimed the east coast for Britain and the colony of New South Wales was established less than 20 years later.

James Cook was widely acknowledged as the greatest explorer of the 18th century; but this reputation was not only due to his navigational skills; also well recognised was his ability to keep his crew fit and healthy for the duration of long voyages - no mean feat at the time.

Cook carried good provisions including citrus fruits, and it is likely his decision to do so was, at least in part, encouraged by another James - Dr James Lind. In 1753 Dr Lind published his study titled *Treatise of the Scurvy* which indicated the then frequently fatal disease was a dietary deficiency from the lack of fresh fruit and vegetables. It was later that vitamin C was named as the essential component.

So, basic research into the effects of vitamin C is certainly not new. In fact it's likely that the Chinese navy was well aware of the importance of diet in protecting its sailors from disease centuries before the western world came to the same conclusion.

These days scurvy is not so common (the amount of ascorbic acid - the chemical name for vitamin C - required to prevent scurvy is as little as 60mg a day), whilst the common cold is very common indeed. So an equally easy way of preventing colds and flu would be really welcome.

Sadly the evidence to support the use of vitamin C in either preventing or treating the common cold is not that good.

Some years ago a review of 29 studies into the effects of vitamin C undertaken over more than 60 years concluded that the vitamin does not prevent the common cold in the general population; daily doses up to 2g were investigated.

However, there was some good news. In a sub group of six of those 29 trials involving marathon runners, skiers or soldiers who were exposed to physical exertion or extreme cold, there was a reduction on average of about 50% in the incidence of colds - and this with a daily dose of about 200mg. It seems that for us mere mortals vitamin C won't do much to prevent the infection, but for supermen and women under great stress there could be some benefit.

Furthermore, the studies showed that adults who developed a cold and were taking vitamin C had, on average, an 8% reduction in the duration of symptoms. Children fared even better still with a 14% reduction in the number of days with cold symptoms.

So, while vitamin C might help us manage a cold just a little bit, it's clear that antibiotics do not. It seems the myth still exists that antibiotics might be somehow useful in treating a cold. However, not only are antibiotics useless against the cold virus, taking antibiotics when we don't need them can make them less effective when we do. This is the message which has been enthusiastically delivered by the National Prescribing Service (NPS).

According to the NPS the best treatment for the common cold is a good dose of common sense, maybe we should also take some oranges if we're going on a long boat trip.