

## Vitamin D and infection

The role of vitamin D in the prevention of infection has been a major interest for many years. There is increasing high quality evidence that vitamin D supplementation can be useful in the prevention and treatment of respiratory infections in vitamin D deficient people.

The main areas of uncertainties are now evolving as to what is an optimal vitamin D level in the blood and what is an optimal dosage regimen? The situation is complicated by the fact that variations in vitamin D binding concentrations as well as genetic variations in vitamin D binding protein influence the amount of vitamin D available at a cellular level. The current evidence indicates that when one is taking a vitamin D supplement to prevent or treat respiratory infection a smaller dose more frequently is better than a large dose intermittently.

My current vitamin D research (funded by HRC New Zealand) is looking more closely at the role of vitamin D supplementation in sinusitis and bronchiectasis.

## Snoring

My main research has been in the biomedical engineering department at AUT University. We have been studying the influence of continuous positive airway pressures on the ability of the mucosa to humidify inspired air. Currently we are looking at ways to improve CPAP machines. I am interested in surgical interventions for snoring. I was the first in the country to popularise radiofrequency surgery to the soft palate over a decade ago.

## Middle ear disease

Together with Professor Ed Mitchell in the Department of Pediatrics, University of Auckland I have been supervision a PhD candidate Rebecca Mitchell. She has almost completed a case-control study looking at a number of factors that might influence middle ear disease.