

Website on honey's therapeutic properties

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A website has been produced which makes available, in language accessible to the public, the knowledge about the therapeutic properties of honey.

The website has come from three decades of research on honey at the University of Waikato, and from researching the literature published by other researchers around the world.

My interest in honey started about 31 years ago when Kerry Simpson told me about honey being used as an antiseptic, and persuaded me to investigate the reason for manuka honey having greater effectiveness than other honeys for this application. The discovery that manuka honey had an unusual type of antibacterial activity led to further investigations and to extensive research into what had been published on the antibacterial activity of honey and its usage in medicine.

The following three decades of my life were devoted to this enthralling subject, with research in the laboratory, clinical research, and searching out everything that others had published about the various bioactivities of honey and its therapeutic usage in a wide range of ailments. Over this period I have gained a very large amount of knowledge about this subject. Reaching the age of 70 this month, and with my wife urging me to retire, I decided that now was a good time to encapsulate this knowledge in an easily accessed resource for the benefit of others. Hopefully this website I have produced to share this knowledge will help correct the many misconceptions I find that people have about honey. Another hope is that it will encourage and help others taking up the mantle to continue scientific and clinical

research on honey, and encourage increased usage of honey as a medicine.

The contents of the website include:

- a list of the findings from completed work in Honey Research at the University of Waikato on honey's antibacterial, antifungal, antiviral, anti-inflammatory and antioxidant bioactivities, with an outline of the details of each finding
- the details of all the papers and theses published arising from Honey Research at the University of Waikato (sorted under the headings: *Composition of honey; Antimicrobial activity of honey; Immunology; Antioxidant activity of honey; Medical usage of honey; Dental usage of honey; Nutrition*), with a link to get free copies of the full text of these articles from the University of Waikato library
- details of the composition of honey
- a link to articles on the range of uses of honey in medicine, and the properties of honey which give it the medicinal actions
- the antibacterial activity of honey, its effectiveness against 'superbugs', and the role of honey in treating diseases (all of this with references to publications in journals)
- the very unusual type of antibacterial activity in manuka honey, what is special about this, and what the term 'Active Manuka Honey' was coined to mean
- how the antibacterial activity of honey is measured and rated
- selection of honey for medical use, and what 'Medical Grade' honey actually means
- the anti-inflammatory activity of honey, its usefulness for treating burns, promoting healing in non-healing wounds and minimising scarring; an outline (with references to the publications) of the very large amount of scientific evidence for honey having anti-inflammatory activity
- the antioxidant activity of honey; the variation between honeys in this, and the two types of activity: free radical scavengers and the more effective "pre-emptive antioxidant activity", which prevents the formation of free radicals in the first place

- the stimulation of the immune system by honey; evidence obtained with white blood cells in laboratory cultures, and evidence from studies with laboratory animals
- the use of honey in modern medical practice to treat wounds, including links to papers which review the vast amount of clinical evidence for the effectiveness of honey
- the scientific explanation of why honey works so well on wounds
- details of the many different wound-care products made from honey that are on sale as registered medical products in many countries
- details of how honey is applied to wounds to get the best results
- a comprehensive bibliography listing the vast number of publications in peer-reviewed professional scientific and medical journals of research from around the world on the medicinal and nutritional properties of honey, sorted into topics: reviews of medical publications; clinical trials; medical case reports; honey in folk medicine; experiments on animals; veterinary usage; treatment of cancer; gastrointestinal usage; ophthalmological usage; dental aspects; nutritional aspects; antioxidant activity; anti-inflammatory activity; antimicrobial activity.

Links are given to where abstracts of the papers listed in the bibliography can be found, and to reviews which summarise what is in the papers on the use of honey in wound healing, the antibacterial activity of honey and nutritional aspects of honey.

The many different sources of funding of Honey Research at the University of Waikato over the past decades are listed. This website has been produced completely independently of any commercial interests, being done using my own time and resource. Care has been taken to ensure that it is scientifically correct and that there is no bias.

The URL for the website is <http://walkato.academia.edu/PeterMolan/Papers> 