

## **Allen Dennison: I Can Heal Wounds with Honey and So Can You**

By Allen Dennison, The Providence Journal, 7/22/2011

The Crowne Plaza Hotel in Warwick resembles a decent beehive even on a slack day. It is swarming with conferees and employees moving in and out of chambers consuming sweet food. Some people arrive by air from nearby T.F. Green Airport on low-cost fares. There is a high social organization.

Next week, on July 25-29, management will show extreme cooperation in welcoming 20 beehives and 500 beekeepers for the annual meeting of the Eastern Apiculture Society. They will have talks on Colony Collapse Disorder, practical beekeeping including a bee yard, the business of keeping an apiary and treating illness with bee products and stings.

On Wednesday they will be regaled by Rhode Island's own Charlie Hall and the Ocean State Follies, who will sting them all in a show they will not soon forget. If you have even a passing interest in bees, I recommend that you go to the Web site [easternapiculture.org](http://easternapiculture.org) and sign up for a day or two.

I am presenting my literature review and work among the elderly in healing wounds with honey, based on 30 years of office practice and work as a medical director of Evergreen House Health Center, a nursing home in East Providence. I remember a comic TV routine with Mel Brooks interviewing Sid Caesar posing as a great Egyptologist. "So professor, what is the secret of Tutankhamen's Tomb?" Quipped Caesar, "Twenty years of research and I should tell you?"

I am going to tell you. Speaking of Egyptian tombs, did you know that urns of honey were found undegraded in several tombs in ancient Egypt? This tells volumes about the amazing chemical nature of honey for wound-healing, to say nothing of the long association of the bees and humans.

How does honey help to heal wounds and why is it superior to neosporin, bacitracin and prescription mupirocin (bactroban)? Honey is bee spit but it is also their energy currency and their bank account. Just as "people get funny about their money" so, too, do bees get funny about their honey. They hate bears, bacteria and yeasts that may steal or spoil the honey. For the bears they have stingers, for the micro-organisms they put amazing stuff in the honey. They also seal the hive with an antimicrobial substance called propolis.

Honey is a mixture of concentrated sugars that immediately dehydrate a bacterial cell, rendering it immobile, though without necessarily killing it. Young Dr. Keith Monchik, of the Orthopedic Service at Rhode Island Hospital (RIH), went to Haiti with our team from the Ocean State to treat earthquake victims. They ran out of usual wound-care creams quickly but a senior military nurse reminded the team that sugar packs from their rations always work in a pinch to keep a wound from getting infected through the same mechanism. He reported gratifying results to the RIH medical staff.

The high osmotic value of honey draws fluids out of wounds. This decreases tissue pressure, thus admitting more new blood, with, of course, oxygen, as well as healing elements and protective immune-system cells. As the fluid hits the honey, small amounts of hydrogen peroxide are produced, very toxic to bacteria but not to fibroblasts and healing elements. Honey derived from medicinally active nectars such as tea tree and eucalyptus may have additional value, and the Food and Drug Administration has allowed their importation and marketing.

Topical antibiotic creams and ointments — both over the counter and prescription — are commonly used for skin infections and wound healing. These include neosporin, bacitracin, “triple-antibiotic” ointments and mupirocin. They sterilize the wound but also kill healing elements, leading to delayed wound closure. And they often lead to confusing red hypersensitivity reactions.

Additionally, more and more bacteria are growing resistant to antibiotics, which is a terrific threat to all of us. Some are costly. We should avoid these like the plague. My wife, Jane Dennison, M.D., is a pediatrician and beekeeper. As our house experienced colony collapse with drone migration of our four boys to New York City and Washington, my wife had the time to take the Bee Course offered by Rhode Island Beekeepers Association (RIBA) and start some hives. At the monthly RIBA meetings I spoke with the older beekeepers and was fascinated to learn of honey’s medicinal benefits. Some of the older beekeepers suggested that I try using honey mixed with Aquaphor ointment on my patients with minor wounds and ulcers. Honey at body temperature gets runny and dribbles on clothes, leading to poor treatment adherence. Aquaphor was already my favorite healing ointment. It is well-suited to mixing in equal parts with honey because the lanolin and mineral oil holds both aqueous and oily parts together to treat a wound.

Mixing large batches with the help of my mother in law, Jane Mackenzie, R.N., is sticky business indeed. She helps me pot it into little cosmetic jars for use in the nursing home. We heat the aquaphor to 110 degrees in the microwave but never put raw honey in the microwave because it would ruin its special qualities. And I urge you all: “Do this at home!.” You can’t buy it already made up.

If I were to try to sell this as a medicament, the Food and Drug Administration could have me jailed and impound all my ointment, because adequate studies on the effectiveness and safety of this compound have not been done. However, two imported products, Medihoney and Manuka Honey, have passed FDA approval for wound-healing. They are derived from the eucalyptus and tea tree plant, respectively, whose nectars have supposedly superior qualities. These honeys are irradiated to inactivate trace amounts of botulinum toxin and bacteria.

I believe that raw honey needs no such help and that such help might even be counter-productive. This treatment and the importation increases the cost of treatment, with small tubes going for \$50 to \$100. I insist on the real thing when treating serious or stubborn wounds but for everyday use the product from your home lab will work very well on your cuts, burns and skin tears.

If you have diabetes and/or congestive heart failure peripheral arterial-supply problems, no ointment is going to help. The problem is under the skin. You need a doctor for it. I invite

colleagues and hospitals to begin randomized controlled trials on using local raw honey head to head against imported honey and the usual wound-care products. My hypothesis is that we can control, at low cost, such superbugs as methacillin-resistant staphylococcus aureus and vancomycin-resistant enterococcus and the emergence of further resistant superbugs by avoiding the usual antibiotics.

Meanwhile, we'd be encouraging the development of new local hives, which are so important to pollination — and thus plant life and the broader eco-system — nationally. You may be interested in using bee stings to treat disease and honey to desensitize yourself to allergies. On July 28 the Apitherapy Association will make a presentation. You can find out information on the schedule and admission at [easternapiculture.org](http://easternapiculture.org).

Allen Dennison, M.D., is an assistant beekeeper and internist practicing in Barrington and East Providence.