



Bee Med

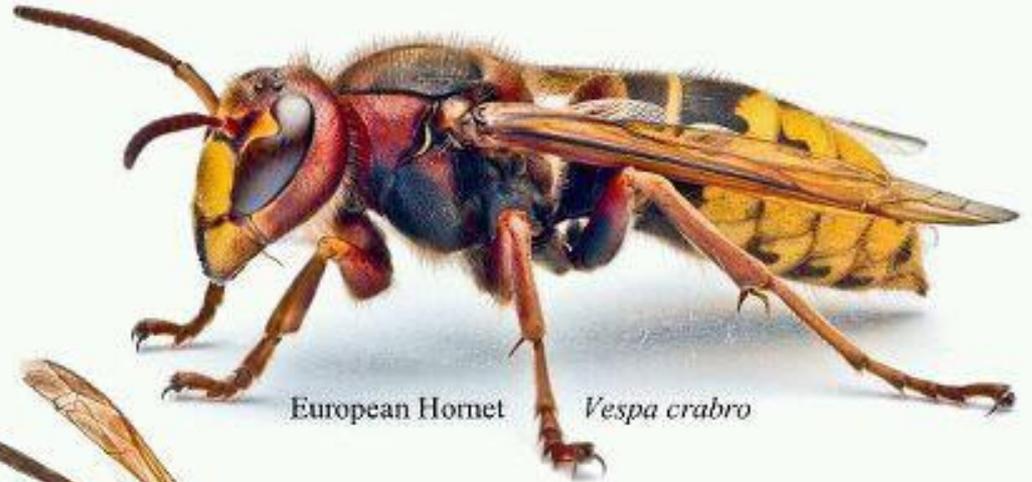
Kory Gill D.O.

DISCLAIMER

- Off Label Uncertified Informative talk.
- Do your research before considering using any bee products medicinally.



Bald-faced Hornet *Dolichovespula maculata*



European Hornet *Vespa crabro*



German Yellowjacket - *Vespula germanica*



European Paper Wasp
Polistes dominula

Bees, Wasps, and Other Beneficials
www.facebook.com/4wasps



Honey Bee
Apis mellifera

0.5 inch
1.25 cm

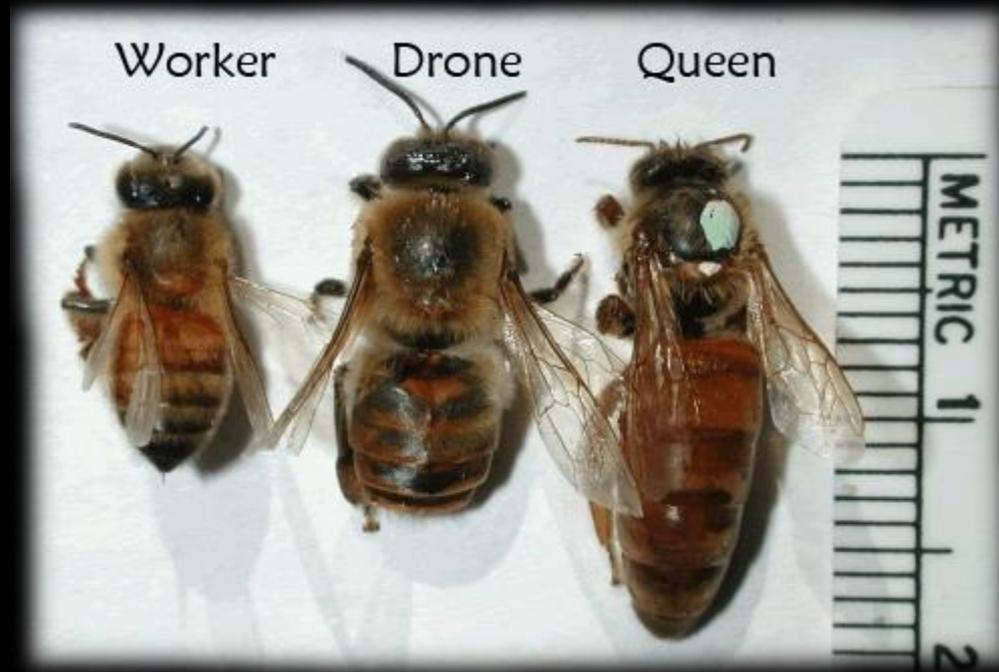


Common Eastern Bumblebee *Bombus impatiens*

Africanized Bees vs Honey Bees

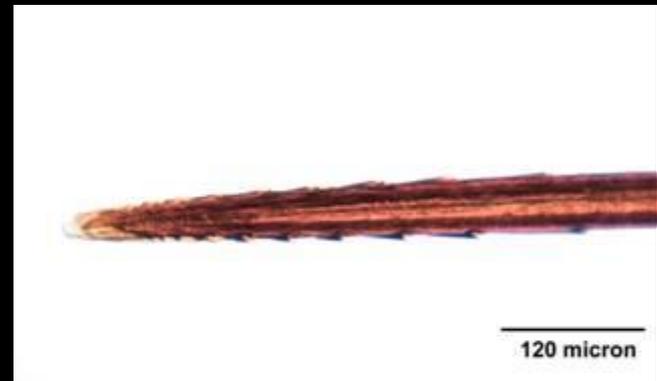


Honey Bees



Honey Bees

- Belong to the order Hymenoptera
 - Includes Paper wasps, Yellow Jackets, Honey bees and Fire Ants
- Have specialized venom glands attached



Envenomation Symptoms

Apitoxin- Bee venom causes local pain, redness, and swelling

You can develop a less severe reaction over time but you can also develop a more severe reaction ie. Allergic reaction.



Envenomation Symptoms

- Allergic reactions
 - Symptoms: Hives, Swelling, Shortness of Breath
 - Happen on the second (or later) sting after antibodies have developed
 - If you've had an allergic reaction once, you've got a significant chance of having an even worse allergic reaction next time
 - A large local reaction is not the same as anaphylaxis

Large Local Reaction





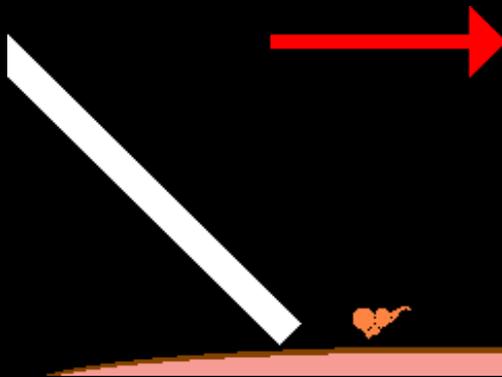
ByeByeDoctor.com

Initial Treatment

- 1. Remove the stinger
- 2. Wash the site with soap & water
- 3. Apply ice for 15 minutes
(helps control the local reaction)
- 4. Take ibuprofen for pain relief

Apply honey or toothpaste (or other options for neutralizing the venom: baking soda/vinegar/meat tenderizer) ???

Removing the Stingers



Treatment cont...

Treatments which can help soothe the irritation/itching:

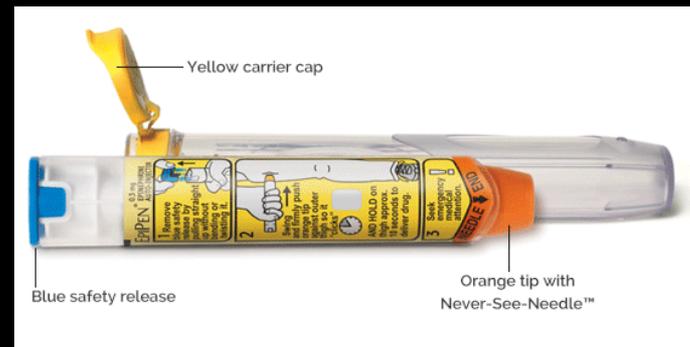
- a. Benadryl tablets by mouth
- b. Hydrocortisone cream
- c. Honey 😊
- d. Caladryl lotion
- e. Toothpaste

Anaphylactic Reaction

- If at anytime signs of systemic allergic reaction occur use epi pen if available and seek immediate medical care
- Signs of Anaphylaxis include:
 - Hives, widespread swelling, shortness of breath

Epi Pen

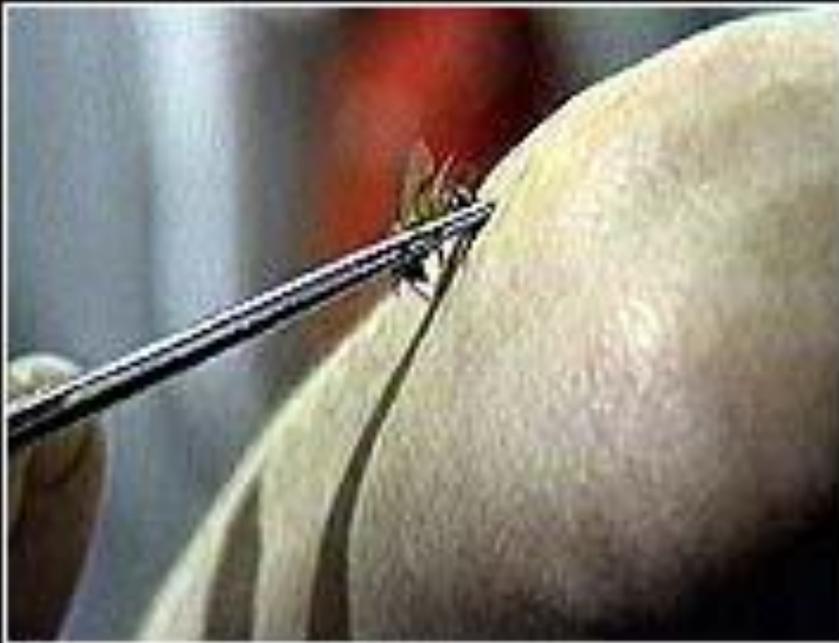
- DO NOT INJECT INTO YOUR VEIN, BUTTOCK, FINGERS, TOES, HANDS OR FEET.
- Use Epi Jr if <30kg
- Cost varies. Check GoodRx.com



Bee Medicine (aka Apitherapy)



Apitherapy



The medical applications of honey bee products.

Honey Bee Products

- Bee Venom
- Honey
- Pollen
- Propolis
- Royal Jelly
- Bee Wax

Honey Bee Products

- **Bee Venom-** inflammatory substance bees use for their defense
- **Honey-** sweet food made by bees using nectar from flowers
- **Pollen-** coarse powder containing the microgametophytes of seed plants
- **Propolis-** resinous mixture that honey bees collect from plants
- **Royal Jelly-** honey bee secretion that is used for their nutrition
- **Bee Wax-** a natural wax produced by bees

Bee Venom - Apitoxin



Potential Applications:

- Arthritis
- Tendonitis/Bursitis
- Fibromyalgia
- Multiple Sclerosis
- Gout
- Scar Healing
- Acne, Eczema
- Asthma
- Improving circulation
- Augment cancer treatment*

Apitoxin components

- Melittin- most prevalent substance in venom; Its use over time appears to block the progression of the inflammatory cascade, thus reducing pain and swelling.
- Adolapin- anti-inflammatory through cox inhibition
- Apamin- stimulates nerves through neurotoxicity; increases cortisol release.
- Phospholipase A2- breaks down cell membranes; anti-coagulant effects
- Hyaluronidase- dilates vessels
- Histamine- generates allergic response

Honey Applications

- Anti-bacterial (Manuka honey*)
- Anti-oxidant
- Wound care
- Moisturizer
- Nutritional
- Digestive aid, helps eliminates stomach bacteria
- Improves sleep
- Cough suppressant
- Reflux treatment
- Allergies treatment (takes 1-2 mo. and last 1-2 wks)

Honey Contents

- Honey is a mixture of carbohydrates, proteins, amino acids, vitamins, minerals, antioxidants and other compounds. It contains a number of enzymes, including invertase, glucose oxidase, catalase, and acid phosphorylase. Honey also contains eighteen free amino acids, the most abundant of which is proline.
- It contains trace amounts of the vitamins B₂, B₄, B₅, B₆, B₁₁ and vitamin C. Minerals like calcium, iron, zinc, potassium, phosphorous, magnesium, selenium, chromium and manganese are also found in honey. The main group of antioxidants in honey are the flavonoids, of which, pinocembrin is unique to honey and bee propolis. **Naturally darker honey has greater antioxidant properties.**

Honey

- 0.5-1.0g per Kg bodyweight (daily intake)
- Loses benefits when heated
- Caution if Diabetic
- Caution for children <1yo for botulinum risk



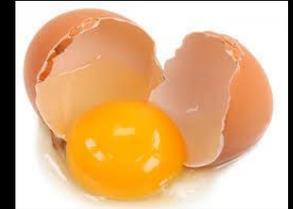
Grandpa's Cough medicine

- 2 lemons
- Fresh ginger (4")
- 1 tsp Cinnamon
- 1 shot of Whiskey
- Raw honey
- 12 oz mason jar



Pollen

- Rich in proteins and Amino acids*
- Supplement containing selenium
- Should be stored in refrigerator
- Allergies treatment
- 7-15 g (1- 2 tsp)/day



Propolis



- Tree resin & oils; “Bee Glue”
- Antimicrobial properties
- Dental plaque prevention
- Reduce PMS and Menopause symptoms through phytoestrogens
0.5 – 5g/ day intake
- Broken down using alcohol



Anti-septic Solution

- 1 Part Propolis
- 9 Parts ETOH
(75%ABV)



Royal Jelly

- Contains water, amino acids, Vitamins A, B, C, D and E; ACH, decanoic acid, sulfur
- Cholesterol reduction
- Anti-aging
- 0.1 - 0.3g/ day intake



Bee Wax

- Skin care products
- Aromatherapy Candles



Resources

- Food & Agriculture Organization:
<http://www.fao.org/docrep/w0076e/w0076e00.htm>
- <http://www.apitherapy.org/>
- <http://www.beevenom.com/>

