

VENOMOUS SNAKES & SNAKE BITES

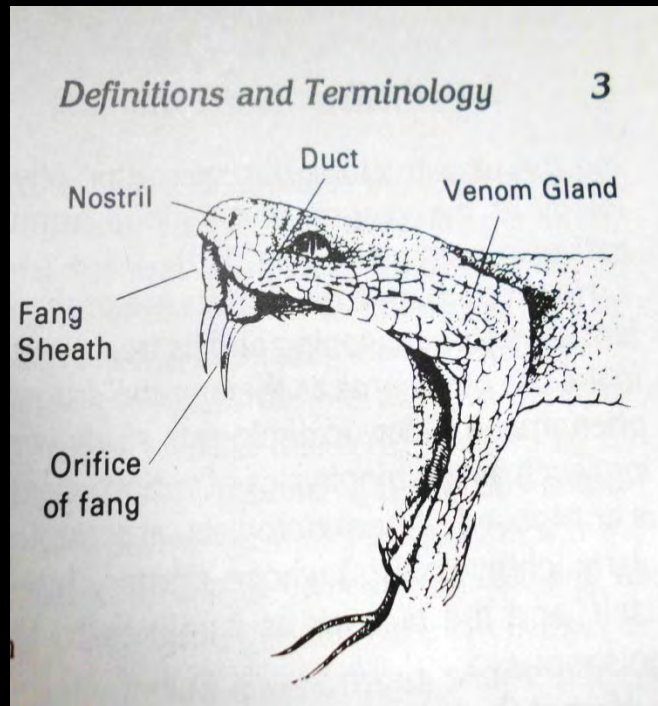




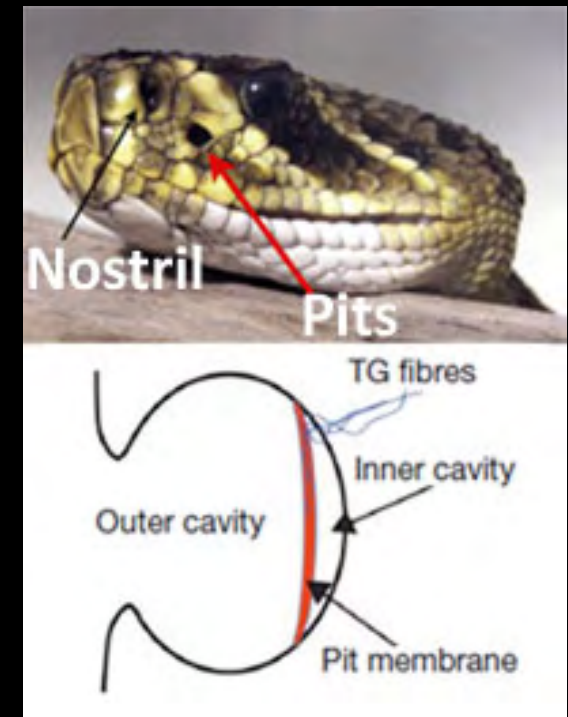


- ▣ Venomous/poisonous animals are represented in all taxa from single celled organisms to mammals.
- ▣ More people are killed by bees , dogs and horses each year than by snakes.
- ▣ Fear of snakes is one of the most common phobias.
- ▣ This fear leads to persecution & exploitation.





- The heat pit uses infrared to detect differences in temperature
- Sensitive enough to detect a change of 0.2°C
- This allows the snake to focus in on the hottest portion of a prey item or predator



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- A rattle segment is added during each shed cycle (approx 50 – 400 days)
 - The rattle is a series of interlocking rings of keratin



Fang types





Hydrophiidae



Elapidae



Crotalidae



Viperidae



Colubridae

Reproduction

EGG LAYERS



LIVE BEARERS



Predator & Prey

VENOM AMOUNT IS ADJUSTED BY SIZE
OF PREY & AIDS IN DIGESTION
ESPECIALLY IN SUB OPTIMAL TEMPS.



VENOM IS USED FOR DEFENSE
ALTHOUGH SEVERAL PREDATORS
ARE IMMUNE TO IT.



Fair Warning

Color

Posture

Secretions

SOUND



RULES FOR AVOIDING SNAKEBITES:

1. **Don't put your hands or feet in places you cannot see and do not put them in places without first looking.**
2. Don't turn over a rock or fallen tree without making sure your hands are out of striking distance of any snake that might be underneath.
3. Don't crawl beneath fences without first looking under them carefully.
4. Don't sit down on a log before looking about carefully.
5. **Don't gather firewood after dark.**
6. Don't sleep near wood or rubbish piles, at the entrance to a cave, or near swampy areas.
7. **Don't disturb snakes or try to kill them.**
8. **Don't attempt to capture snakes.**
9. **Don't handle freshly killed snakes.**
10. Don't get within the snake's striking distance in attempting to identify it.
11. Don't walk at night in the open spaces of this area unless you wear boots. In fact, never walk in any rattlesnake haunt in low-cut shoes.
12. Don't swim in waters known to be infested with snakes.
13. Examine supposedly dead snakes with a stick, not with your hands.
14. If you must transport a dead snake, put it on the end of a long stick or shovel.
15. Remember that rattlesnakes may be found at high altitudes, and they can climb walls and trees.
16. In hiking, stay on paths and avoid tall grass and heavy underbrush.
17. Climb up cliffs, between rocks and over boulders with caution.
18. **Avoid traveling alone in snake-infested areas.**
19. Make camp on open ground.
20. **Use caution when moving tree limbs in or near swampy areas, where snakes are known to sun themselves.**
21. Be particularly careful when moving boats left on shore for several hours.
22. Most importantly, don't "horse around" with or near snakes.
23. **If you are bitten, get away from the snake as quickly as possible.**

How bad is it?

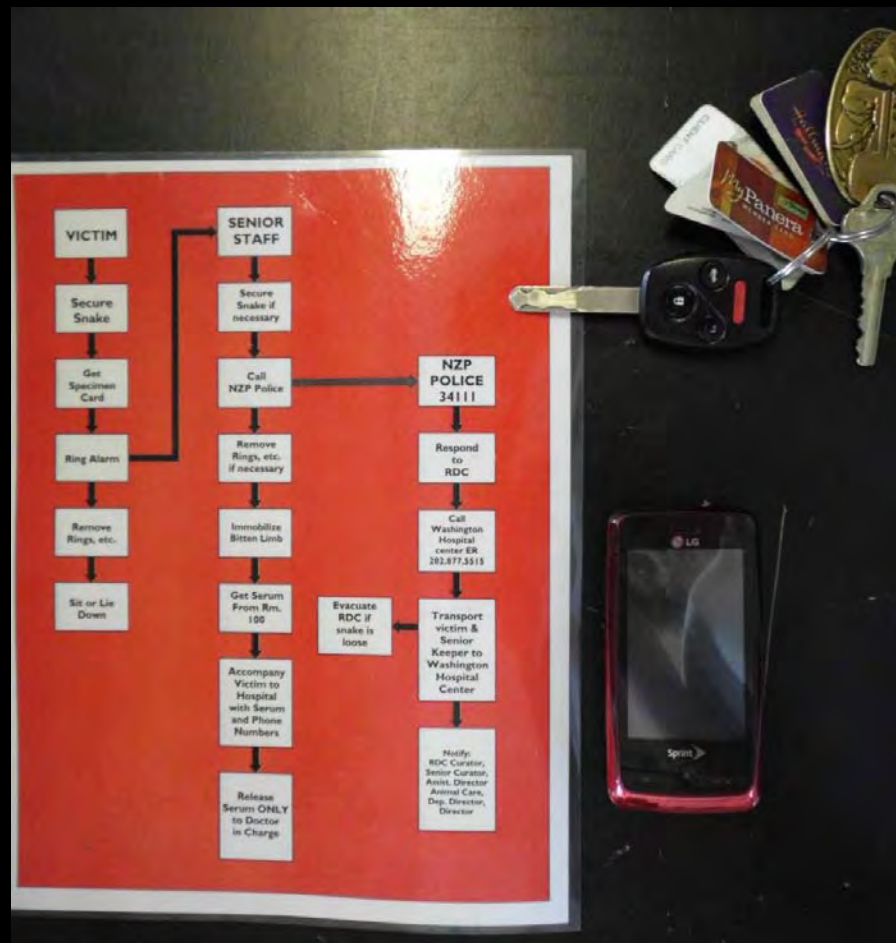
FACTORS

- ▣ Location of the bite
- ▣ Age, size & health of the victim and snake.
- ▣ Species of snake (Note there is lots of variation with a species)
- ▣ Venom quality
- ▣ Fang size
- ▣ Venom delivery

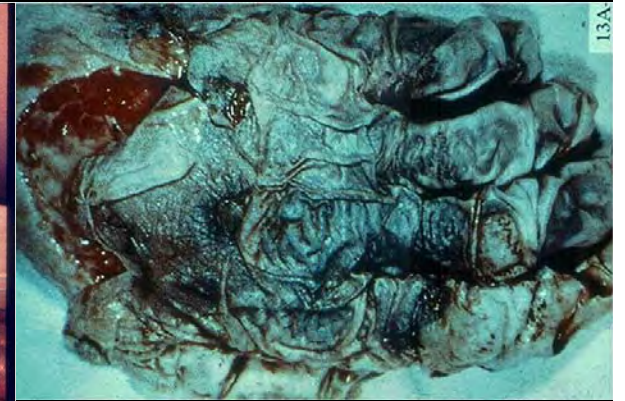
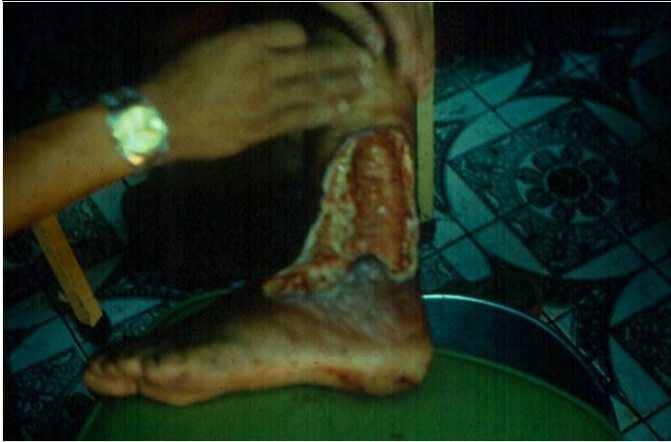
WHAT TO EXPECT AT THE HOSPITAL

- ▣ Tetnus
- ▣ Antivenin (if needed and available)
- ▣ Antibiotics
- ▣ Antihistamines
- ▣ Epinephrine
- ▣ Analgesics
- ▣ Fluids
- ▣ Blood products
- ▣ Respiratory assistance

Venomous snake bite is a medical emergency that requires medical treatment. TIME IS TISSUE!!!



**Snake Bite Treatments Have
Been Around For 4 Thousand
Years and Most Cause More
Damage Than The Bite Itself.**



Antivenin

Can be polyvalent or monovalent & can be produced using horses, sheep or goats.



Indications for A/V use

- Haemostatic abnormalities
- Shock
- Neurotoxicity
- Myotoxicity
- Nephrotoxicity
- Severe local envenoming
 - Severe swelling, discoloration, pain



Minor copperhead bite (no AV necessary)

Proper A/V Usage

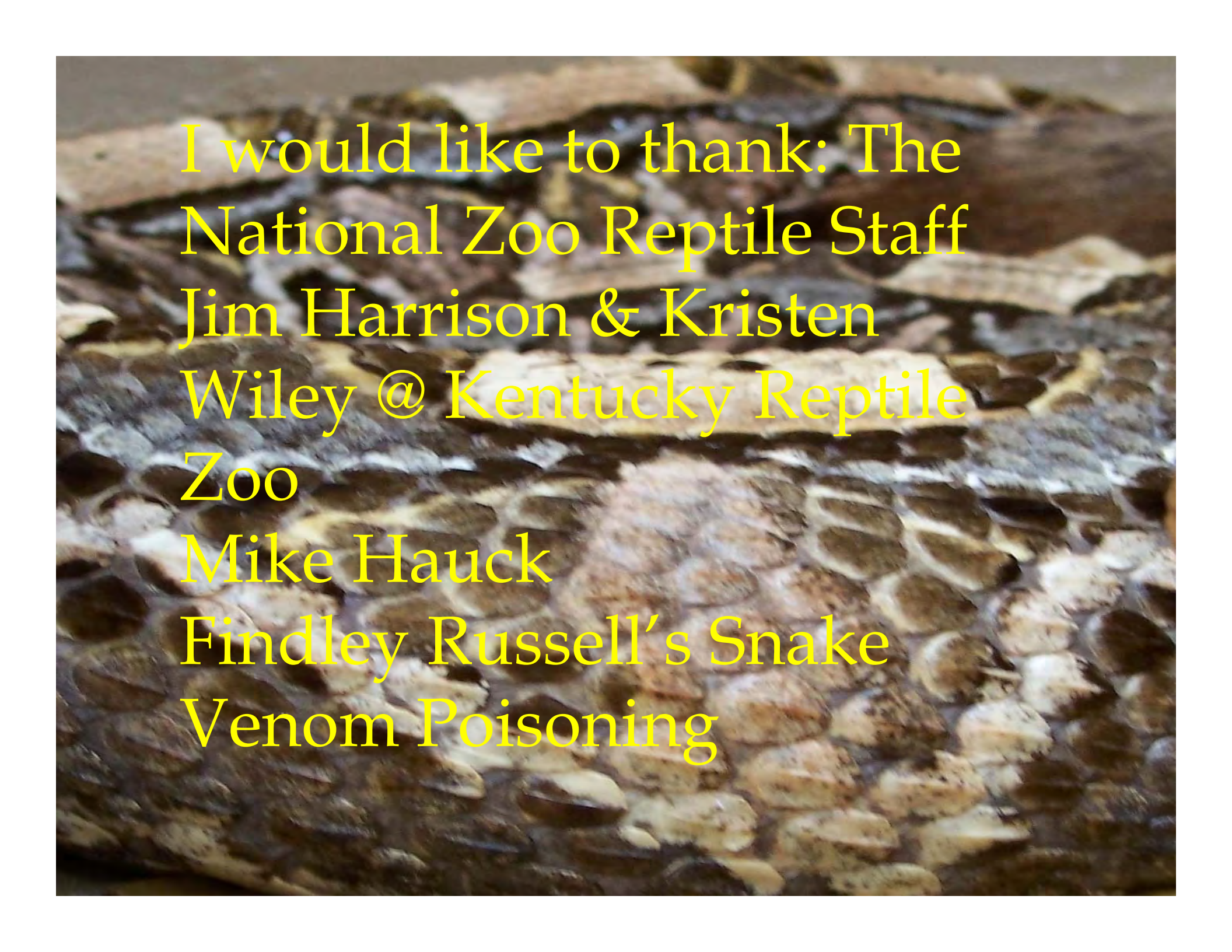
- Slow IV drip; initial starting dose dependent on species and type of A/V used
- 0.1% epinephrine/adrenaline drawn up and ready in case of anaphylactic rxns
 - Skin tests not predictive
- Continue administration until systemic symptoms controlled

Serum Sickness

IS AN IMMUNE RESPONSE TO ANTI-
VENIN SIMILAR TO AN ALLERGIC
REACTION

SYMPTOMS INCLUDE HIVES, RASH,
FEVER, JOINT PAIN AND SWOLLEN
LYMPH NODES



A close-up photograph of a snake's head, showing its eyes and the intricate patterns on its scales. The scales are a mix of dark brown, tan, and cream colors, with some having a distinct hourglass or blotched pattern. The snake's head is positioned diagonally across the frame. Overlaid on the image is yellow text in a serif font, arranged in seven lines.

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