**Healing Power of Poison**

# Yesterday’s deadly venoms are today’s strong medicine

If it doesn’t kill you, it will make you stronger. Medical researchers are giving the old adage new meaning by finding ways to heal using some of nature’s most lethal poisons.

**Take arsenic. That’s just what some cancer patients are doing, with a recently approved drug called arsenic trioxide. Long used as a rat poison, arsenic recently has been shown to halt a deadly blood cancer called acute promyelocytic leukemia. Less toxic to the body than standard chemotherapies, arsenic appears to cause these cancer calls to convert into normal cells. Of 40 patients given the drug in a clinical trial, 28, or 70%, experienced remission of their leukemia.**

Just as deadly – and potentially life saving – are the toxins contained in snail and snake venom. Psychiatric researcher J. Michael McIntosh was a high school senior in 1979, working on a science project, when he first began to investigate the venom of cone snails. These slow-moving snails catch fish by paralyzing them with a zap from a tentacle, explains McIntosh, now a psychiatrist at the University of Utah. “One substance they use is a natural painkiller 100 to 1000 times more powerful than morphine,” he says. Remarkably, when administered to humans, the poison blocks pain signals without affecting muscles. “It can be injected into the spine to ease chronic pain without causing movement problems or paralysis.”

**Perhaps the most amazing foe turned friend is the toxin produced by bacteria called Clostridium botulinum. The cause of botulism, it’s the deadliest toxin known in nature. In minute amounts, a purified form, called Botox, quiet unruly muscles – smoothing wrinkles and also helping patients with cerebral palsy and diseases that cause severe muscle spasms. One of the latest studies shows that injections of Botox work as well for tennis elbow as surgery.**

**“There’s nothing really new about using poisons to heal,” says otolaryngologist Andrew Blitzer from Columbia University. “One of the most widely used heart medications is derived from the digitalis plant (known as foxglove), which was once used for poison-tipped spears. Poisons are powerful. In medicine we try to turn that power to good.”**

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***(Peter Jaret, in the February, 2003, issue of Reader’s Digest, on page 185)***