A turtle found stranded or caught in a net may appear to be dead, in a coma, or in shock; having lost or suppressed reflexes and showing no signs of breathing. Most turtles caught by shrimp trawlers, under conditions of forced submergence, are not drowned but in a coma .(ref.1 The decline of the Sea Turtle 1990 .A 1989 study by National Marine Fisheries Service of 7 research projects spanning 12 years during which 4,397 turtles were caught in trawler nets found that for most tow times, there were more comatose than drowned turtles.)

Although a comatose turtle may revive on its own after several hours on land/boat, the fate of a comatose turtle returned directly to the sea is unknown. It is reasonable to assume that they will die. (Kemmerer 1989) Applying the Acupuncture Protocol for Sea Turtle Resuscitation should revive the turtle in 30 seconds to 10 minutes, depending on the circumstances of the individual trauma.

The Acupuncture Protocol for Sea Turtle Resuscitation can be performed anywhere in the world; in the laboratory, in the field, or on a shrimp trawler. We are currently looking for scientists, biologists, veterinarians, and sea turtle researchers, to share this protocol with those who would have access to sea turtles in shock, coma, cardiac distress; otherwise “dead” appearing turtles. (A turtle may appear to be dead when in shock or coma, having lost or suppressed reflexes and showing no signs of breathing.)

A published bibliography of 138 books/clinical trials by Phillip Rogers D.V.M. documents the effects and clinical efficacy of stimulation of acupoint GV26 in humans and animals. It is the most used emergency point in acupuncture. Stimulation of GV26 resuscitated to consciousness humans and animals (some that were pronounced clinically dead) in acute emergencies, narcosis and shock. It had potent anti-shock effects and decreased mortality rates in haemorrhagic, surgical, post partum, endotoxic, anaphylactic, and other forms of shock. It countered exhaustion, enhanced hepatic metabolism and adrenocortical function, promoted membrane transport, and helped recovery in prostration. It regulated the central nervous system and had anti-convulsive effects and reversed the depressive effects of general anaesthesia on the central nervous-, autonomic-, cardiovascular-, and respiratory systems. It enhanced cardiovascular and cerebrovascular function: it enhanced heart function, had sympathomimetic (cardiostimulant) effects on the cardiovascular system, had pressor effects in haemorrhagic shock and ischemic hypotensiuon. It was effective in acute brain and cerebral emergencies and in treating their sequels. It enhanced brain perfusion and hastened clinical recovery after cerebrovascular accident. It enhanced brain perfusion and hastened clinical recovery after cerebrovascular accident. It enhanced respiratory functions and reversed neonatal and anaesthetic apnoea, increased neuronal activity in the respiratory center and increased amplitude of phrenic nerve discharges.

Four additional acupuncture points are also suggested for drowned or comatose turtles; cardioactive points PC6 and PC9 and points used for revival from drowning, K1 and tail tip point. These points were extrapolated to the sea turtle

from humans and other animals based on the underlying anatomy and physiological structure/function .

My fellow researcher on the protocol, Phillip Rogers D.V.M. and Veterinary Acupuncturist, has published extensively on these points and has used them to revive animals. The procedure for using these points is easy for anyone to learn.

Phillip Rogers' published review of the use of GV26 in resuscitation of animals is at:

http://users.med.auth.gr/~karanik/english/articles/gv26.htm

Dr. Rogers states:

> Though several Chinese reports on humans and animals, and a few papers by Lee's team in USA on experimental shock in dogs, had published very significant effects of GV26 on respiratory and cardiovascular responses in the early 1970s, I was probably the first scientist to publish the use of GV26 in emergencies in a western veterinary journal. I used it in a rat that stopped breathing after a 3-hour experimental brain-surgery in the Agric Fac Neurophysiology Unit of Wageningen University.
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> The surgeons tried conventional resuscitation (chest massage, positive bulb ventilation and, I think, millophyline injection) but their attempts failed and they gave up (because another rat was in mid-operation and they had to continue operating on that rat).
>
> Without asking permission, I used a brain electrode to stimulate GV26. It worked in seconds and the rat survived. *See:* Rogers PAM (1977) *Revival in collapse, shock, respiratory failure and narcotic overdose*. Veterinary Record, vol. 101, no. 11, p. 215, 6 ref., ISSN: 0042-4900. *See also:* Janssens L, Altman S & Rogers PAM (1979) *Respiratory and cardiac arrest under general anaesthesia: treatment by acupuncture of the nasal philtrum.* Veterinary Record, vol. 105, no. 12, p. 273-276, 32 ref., ISSN: 0042-4900.
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> The philtrum point VG26 (Renzhong, Jen Chung, GV26) was needled in 69 cases of respiratory depression or apnea in dogs and cats during induction or maintenance of general anesthesia. Respiration was restored to normal or near normal rates within 10 to 30 seconds of insertion of the needle in all cases. In 7 cases of anesthetic apnea with concurrent cardiac arrest and absence of vital signs, the revival rate was 43%. Those which recovered required 4-10 minutes of acupuncture stimulation. In 8 cases of collapse due to other causes, the revival rate was 25%. The cases included five sheep in [hemorrhagic] shock following liver biopsy, two cases of hemorrhagic shock (dog, cat), and one terminal collapse in chronic congestive heart failure (dog).
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> From our results in dogs (the 1980 paper above), for sea turtles my gut predicts 80% success of cases whose hearts are beating at the start of the intervention, and 50 to 20% success in cases whose hearts have stopped 1-

10 minutes before the intervention.

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