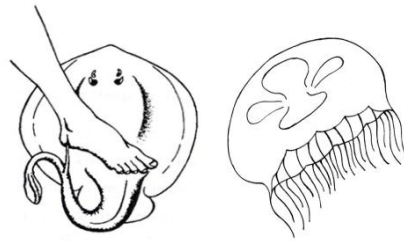


## Jellyfish and marine envenomation



### 1) General Information

None

### 2) Alternatives

None

### 3) Risks and Side Effects

#### General Risks

None

#### Specific Risks

None

### 4) Pre/ Post Care

#### Pre-arrival instruction:

1. Immediately bring yourself off the sea once you encounter or contact with jellyfish or venomous marine animal. Don't waste time trying to identify the organism.
2. If the patient is unconscious and not breathing or gasping, starts CPR immediately and call for help without having to waste time trying to clean the wound. You can call directly to Bangkok Hua-hin hospital (emergency room) for pre-arrival instruction and ambulance service at 032-616-888 or 1724, which is available 24 hours.
3. If the patient is conscious with normal breathing, call for help and rinse the wound with copious sea water to remove some of the toxin (may not be seen by naked eye) from skin surface. If vinegar, soda or soft drink is available, you can pour the solution over the wound continuously for ~20sec and bring the patient to the hospital for further evaluation and treatment. Do not rub the wound surface, use drinking or tap water, scrap the wound with sharp object as this may cause the attached toxin to become activated and cause further injury and pain to the skin. Eye sting should be rinsed with normal saline or artificial tears, dab the skin around eyes with a towel soaked with vinegar. Do not place vinegar directly into the eyes. Mouth stings should be treated with diluted vinegar of 1:4 dilutions with water. Gargle and spit out the solution, do not drink or swallow the solution.



4. For contact with other marine animal like sea urchin, sting rays, or corals, warm bath the affected part in warm water ~40°C for 30-90 minutes to destroy the toxin and relief the pain before arrival to the hospital.
5. In case of puncture wound from marine animal like sea urchin or sting rays, do not use hard object to hammer the wound trying to break down the retained spine or sting as this may cause further damage to the tissue and speed toxin absorption into the body and cause further pain.
6. Bring patient immediately to the hospital without wasting time cleaning the wound, if he/she is unconscious, complains of difficulty breathing, chest pain or discomfort, palpitation, or muscle cramp.
7. Do not clean the wound with alcohol, drinking or tap water as this may activate the release of further toxin from the wound.
8. Sea morning glory can be use as a natural remedy to destroy jellyfish toxin. Grind the sea morning glory to release its juice and apply on the wound gently (do not rub the wound). This step is optional and may be done after application of sea water/vinegar rinse.



9. Always come to see doctor even if the initial wound looks mild as severe skin reaction and symptoms to toxin may takes hours to develop and appropriate first aid and further proper medical treatment can markedly lesson severity of the wound and pain symptoms.



#### **Home instruction being seen by doctor:**

1. Avoid the wound to contact with tap water (especially during bathing) for at least 2 days or until pain symptoms improved.
2. Clean the wound with normal saline solution (0.9%NaCl) instead of tap water 1-2 times/ day.
3. Minor wound with local inflammation can be self-care by applying steroids cream after cleaning wound with normal saline solution. Generally, inflamed wound will slowly improve and healed within 10 days.
4. Avoid direct contact of wound to dirt such as soil, dust, sand, or mud etc. to prevent from wound infection. Advice covering the wound to avoid local irritation and pain from direct contact with clothing.
5. Generally pain from inflamed skin can persist up to 10 days, however some patient may have pain for several weeks. This depend on the type of marine animal encountered, the duration of direct contact to the skin and patient's own body reaction to the toxin exposed.
6. Re-visit the hospital for re-evaluation and proper treatment if the wound got swollen, developed blister, had pus or cloudy discharge, inflamed skin increase in size or developed fever.
7. Advise to come for follow up (if appointment was made) and take medication as prescribed by your doctor.

**Prevention:**

1. Wear protective clothing (wet suits, Lycra dive skin/rash guard). Wear long sleeves clothing for better protection.
2. Avoid picking up dead jellyfish, as they may still have live nematocyst that can release toxins (even after they have dried up). Also, don't touch any marine life while swimming to avoid yourself being exposed to unnecessary envenomation.
3. Avoid going into known jellyfish-infested areas. Look for local signs of jellyfish warning and strictly follow the instruction.

**References:**

1. บทความ เรื่องสัตว์ทะเลที่มีพิษ และเป็นอันตราย โดย นายแพทย์สุรจิต สุนทรธรรม, พ.บ. (เกียรติคุณอันดับ ๑)  
อายุรศาสตร์: เวชศาสตร์ฉุกเฉินและเวชพิษวิทยา และเวชศาสตร์ป้องกัน: เวชศาสตร์สิ่งแวดล้อมและอาชีพ เวชศาสตร์ครอบครัว: การตรวจและการสร้างเสริมสุขภาพ  
นายอดิสรณ์ มนต์วิเศษ สถาบันวิทยาศาสตร์ทางทะเล มหาวิทยาลัยบูรพา ชลบุรี 20131
2. Geoffrey K. Isbister . Trauma and Envenomations from Marine Fauna Tintinally 's Emergency Medicine: A Comprehensive Study Guide , seventh edition 2011 , American College of Emergency Physicians: 2011, page 1358-1366
3. O. John Ma,MD./ David M Cline,MD . Trauma and Envenomation from Marine Fauna : Emergency Medicine Manual, sixth edition [International Edition] , American College of Emergency Physicians, 2004:page 575-77
4. พจมาน ศิริอารยาภรณ์ , บทพิษจากแมงกะพรุน การรักษาเบื้องต้นและการป้องกัน : พิษจากสัตว์และพืช ,สภากาชาดไทย ,หน้าที่ 120-32
5. Drobin B. Jellyfish stings. [http://www.emedicinehealth.com/jellyfish\\_stings/article\\_em.htm](http://www.emedicinehealth.com/jellyfish_stings/article_em.htm). Retrieved Jul 24, 2014.