



MED-JELLYRISK JELLYFISH ENVENOMATION FIRST AID HANDOUT



Recommendations on treatment of Mediterranean jellyfish envenomations

Generalities

Some jellyfish species may sting humans, determining local reactions and occasional systemic effects. Treatment of jellyfish envenomation aims to attenuate venom effects, prevent further envenomation from residual jellyfish pieces, and keep in check occasional systemic reactions, including shock.

Depending on the jellyfish species, there is evidence and consensus on oral/topical analgesics, hot water and ice packs as effective painkillers. For a few species (see below), a short application of domestic vinegar may prevent further discharge of unfired jellyfish stinging cells left on the skin.

Most treatment approaches are presently founded on relatively weak evidence and further research is strongly recommended. Dissemination of appropriate treatment modalities is deployed in the framework of MED-JELLYRISK to better inform and educate those at risk. Adequate signage will be placed at beaches to notify beach goers of the jellyfish risk.

WARNING: seek immediate medical attention if shock or breathing difficulties occur.

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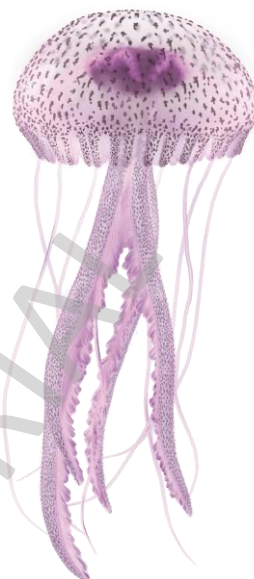
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JELLYFISH-SPECIFIC ENVENOMATION TREATMENT PROCEDURES



1. *The mauve stinger*

Pelagia noctiluca

This is the most common stinger jellyfish in the Western and Central Mediterranean. It can be very common also in the Aegean, Ionian and Adriatic seas.

WARNING: DO NOT APPLY FRESHWATER, NO VINEGAR, NO PRESSURE BANDAGE, NO ALCOHOL. Seek immediate medical attention if shock or breathing difficulties occur.

1) CAREFULLY WASH WITH **SEAWATER**, DO NOT RUB

2) IF AVAILABLE, APPLY FOR FIVE MINUTES A BAKING SODA SLURRY (50% commercial baking soda; 50% seawater) to prevent further envenomation from attached tentacles.

3) USE A PLASTIC CARD TO REMOVE RESIDUALS OF TENTACLES

4) APPLY **ICE PACKS** (wrapped in a cloth or thin towel, not directly on the skin) for 5-15 minutes - Warn victim that ice pack may be uncomfortable at first!

5) REASSESS PAIN AND REAPPLY ICE PACKS IF NECESSARY

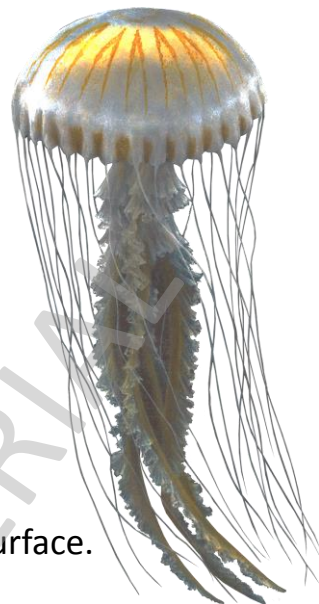
6) IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONALS – Ask for analgesic + hydrocortisone preparations (eg. lidocaine 3-4% + hydrocortisone)

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JELLYFISH-SPECIFIC ENVENOMATION TREATMENT PROCEDURES



II. *The compass jellyfish*

Chrysaora hysoscella

Belonging to the same family of *Pelagia noctiluca*, this is a less common but similarly painful stinger jellyfish, usually found in spring. White-yellowish umbrella, with 16 brown bands on the surface.

WARNING: DO NOT APPLY FRESHWATER, NO VINEGAR, NO PRESSURE BANDAGE, NO ALCOHOL. Seek immediate medical attention if shock or breathing difficulties occur

1) CAREFULLY WASH WITH **SEAWATER**, DO NOT RUB

2) IF AVAILABLE, APPLY FOR FIVE MINUTES A BAKING SODA SLURRY (50% commercial baking soda; 50% seawater) to prevent further envenomation from attached tentacles.

3) USE A PLASTIC CARD TO REMOVE RESIDUALS OF TENTACLES

4) APPLY **ICE PACKS** (wrapped in a cloth or thin towel, not directly on the skin) for 5-15 minutes - Warn victim that ice pack may be uncomfortable at first!

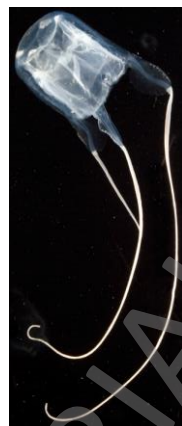
5) REASSESS PAIN AND REAPPLY ICE PACKS IF NECESSARY

6) IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONALS – Ask for analgesic + hydrocortisone preparations (eg. lidocaine 3-4% + hydrocortisone)





JELLYFISH-SPECIFIC ENVENOMATION TREATMENT PROCEDURES



III. *The box jellyfish*

Carybdea marsupialis

A small painful stinger jellyfish (few cm in diameter), usually found in summer. Cube-shaped umbrella with 4 long tentacles. Transparent, bluish or whitish colour. It inhabits very shallow waters

WARNING: DO NOT APPLY FRESHWATER, NO PRESSURE BANDAGE, NO ALCOHOL. Seek immediate medical attention if shock or breathing difficulties occur.



- 1) WASH WITH **SEAWATER**, DO NOT RUB
- 2) WASH WITH COMMERCIAL **VINEGAR**
- 3) USE A PLASTIC CARD TO REMOVE RESIDUALS OF TENTACLES
- 4) APPLY **HOT PACKS** OR HOT WATER IMMERSION (**40-45 °C**) 5-15 minutes
- 5) REASSESS PAIN AND REAPPLY HOT PACK IF NECESSARY

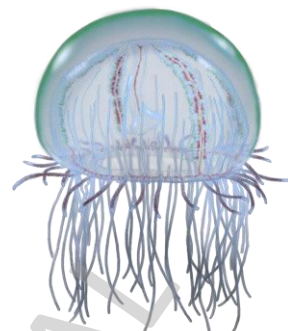
A. Gennari 2013

- 6) IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONAL – Ask for analgesic + hydrocortisone preparations (eg. Lidocaine 3-4% + hydrocortisone)





JELLYFISH-SPECIFIC ENVENOMATION TREATMENT PROCEDURES



IV. *The cigar jellyfish*

Olindias phosphorica

Small dome-shaped (up to 6cm diameter), possessing distinctive red cross radial canals. Common in summer and autumn.



WARNING: DO NOT APPLY FRESHWATER, NO PRESSURE BANDAGE, NO ALCOHOL. Seek immediate medical attention if shock or breathing difficulties occur



- 1) WASH WITH COMMERCIAL **VINEGAR** (4-6% acetic acid) – OTHERWISE, WASH WITH **SEAWATER** - DO NOT RUB
- 2) USE A PLASTIC CARD TO REMOVE RESIDUALS OF TENTACLES
- 3) APPLY **ICE PACKS** (wrapped in a cloth or thin towel, not directly on the skin) for 5-15' - Warn victim that ice pack may be uncomfortable at first!
- 4) REASSESS PAIN AND REAPPLY ICE PACKS IF NECESSARY
- 5) IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONAL – Ask for analgesic + hydrocortisone preparations (eg. Lidocaine 3-4% + hydrocortisone)





JELLYFISH-SPECIFIC ENVENOMATION TREATMENT PROCEDURES



V. *The Portuguese man-of-war*

Physalia physalis

Floating jellyfish, with a gas-filled floating chamber, extremely long tentacles (up to 20-30 m) extended below. Rare in spring and summer, very painful stinger



WARNING: DO NOT APPLY FRESHWATER, NO PRESSURE BANDAGE, NO ALCOHOL, NO VINEGAR. Seek immediate medical attention if shock or breathing difficulties occur

1. WASH WITH **SEAWATER** - DO NOT RUB
2. USE A PLASTIC CARD TO REMOVE RESIDUALS OF TENTACLES
3. APPLY **HOT PACKS OR HOT WATER IMMERSION (40-45 °C)** 10-20 minutes
4. REASSESS PAIN AND REAPPLY HOT PACK IF NECESSARY
5. IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONAL – Ask for analgesic + hydrocortisone preparations (eg. Lidocaine 3-4% + hydrocortisone)





JELLYFISH-SPECIFIC ENVENOMATION TREATMENT PROCEDURES



VI. *The Nomadic Jellyfish*

Rhopilema nomadica

This large (bell diameter up to 90cm, usually 40-60cm) jellyfish has a very painful sting. It is native to the Indian and Pacific Oceans. It has a light blue umbrella and short tentacles, being especially common in the eastern half of the Mediterranean. Adult medusae appear in late spring and summer.



WARNING: DO NOT APPLY FRESHWATER, NO PRESSURE BANDAGE, NO ALCOHOL. Seek immediate medical attention if shock or breathing difficulties occur

1. RINSE WITH **SEAWATER** - DO NOT RUB

1. 2) IF AVAILABLE, APPLY FOR FIVE MINUTES A BAKING SODA SLURRY (50% commercial baking soda; 50% seawater) to prevent further envenomation from attached tentacles.

1. USE A PLASTIC CARD OR FORCEPS AND PROTECTIVE GLOVES TO REMOVE RESIDUALS OF TENTACLES

2. APPLY **ICE PACKS** (wrapped in a cloth or thin towel, not directly on the skin) for 5-15 minutes - Warn victim that ice pack may be uncomfortable at first!

1. IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONAL – Ask for analgesic (e.g. acetaminophen, ibuprofen) + topic hydrocortisone preparations (eg. Lidocaine 3-4% + hydrocortisone)





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Jellyfish artwork: Alberto Gennari

Recommendations based on available scientific evidence and clinical tests reviewed mainly in:

- 1) Cegolon L. et al. 2013. Jellyfish sting and their management: a review. *Marine Drugs* 11, 523-550
- 2) Auerbach P., 2007 Marine Envenomations. *Wilderness Medicine*, Mosby-Elsevier

