



SPOT THE JELLYFISH

STING TREATMENT FIRST AID ADVICE



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.

The **Spot the Jellyfish** citizen science campaign kicked off in June 2010. The campaign, which is currently coordinated by Prof. Alan Deidun, Malta's Ocean Ambassador, from the Oceanography Malta Research Group of the Department of Geosciences within the University of Malta, has received thousands of jellyfish reports from the public, all of which have been validated along technical grounds and published spatially online on the campaign's website (ocean.mt/jellyfish). All validated submitted reports can be viewed online on a summary map which depicts jellyfish occurrence and distribution on a spatial and temporal scale. This makes the campaign the longest continuous-running national jellyfish spotting campaign within the entire Mediterranean Basin, representing a priceless example of a national marine monitoring platform. The campaign has been featured on EuroNews as well as in the UK's The Guardian newspaper.

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



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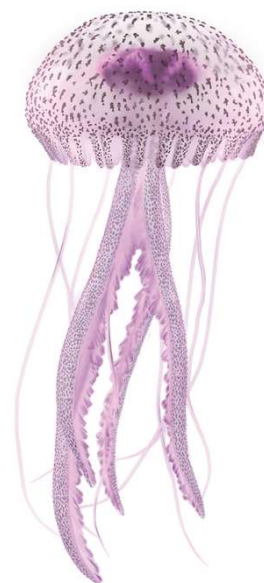


ocean.mt/jellyfish

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RECOMMENDED TREATMENT FOR 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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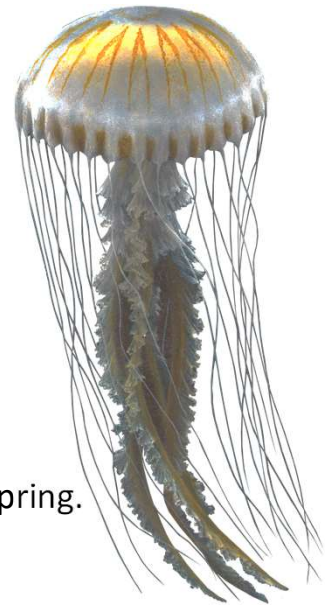
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RECOMMENDED TREATMENT FOR II. *The compass jellyfish*



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)



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RECOMMENDED TREATMENT FOR 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.



A. Gennari 2013



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

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



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RECOMMENDED TREATMENT FOR 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)



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RECOMMENDED TREATMENT FOR *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)



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RECOMMENDED TREATMENT FOR 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
- 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 OR FORCEPS AND PROTECTIVE GLOVES 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) 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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Main authors: Stefano Piraino and Alan Deidun

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



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