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 beachgoers of the jellyfish risk.

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

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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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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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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

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

1. **IF PAIN PERSISTS, CONSULT YOUR PHARMACIST OR HEALTH CARE PROFESSIONAL – Ask for analgesic (e.g. acetaminophen, ibuprofen) + topic hydrocortisone preparations (e.g. Lidocaine 3-4% + hydrocortisone)**
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Jellyfish artwork: Alberto Gennari
Recommendations based on available scientific evidence and clinical tests reviewed mainly in:
2) Auerbach P., 2007 Marine Envenomations. Wilderness Medicine, Mosby-Elsevier