



# Maritime Health Trainings for Seafarers and Doctors

## «Poisoning and seasickness»

ERASMUS+ KA2 - Cooperation for Innovation and the Exchange of Good Practices  
KA202 - Strategic Partnerships for vocational education and training



REPUBLIC OF TURKEY  
MINISTRY OF HEALTH  
GENERAL DIRECTORATE OF HEALTH  
FOR BORDER AND COASTAL AREAS OF TURKEY



AP&A  
GROUP

## Poisoning and seasickness

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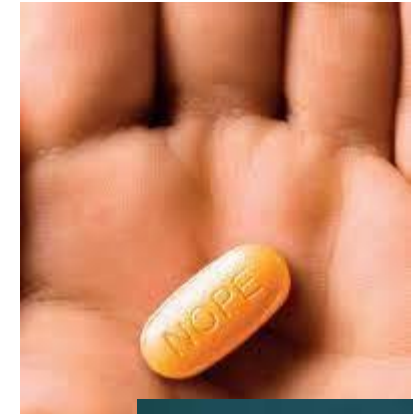
✓ **Learning Objective;**

The aim of this section is to provide the knowledge necessary to give immediate response about **Food poisoning and seasickness** onboard. Upon completion of this section, trainers will be able to:

- What is the Poisoning
- Types of Poisoning with ingested drugs and chemicals
- *What is Red flags*
- Common poisoning agents
- Explain the signs and symptoms, preventing actions of Food poisoning from marine toxins (CIGUATERA FISH POISONING and SCOMBROID FISH POISONING)
- Explain the seasickness
- Explain what to do- preventing seasickness

## What is poisoning?

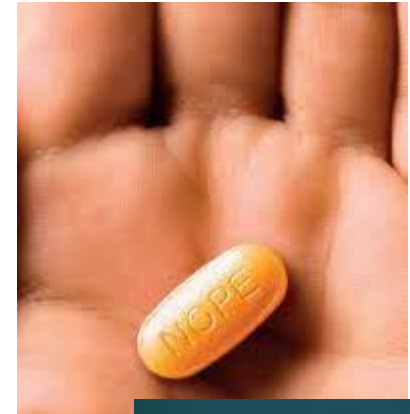
Poisoning on board ship may occur after exposure to medical drugs, cargo, or substances used during work. For occupational exposures, this chapter should be used in conjunction with the most recent versions of the International Maritime Organization's *Medical First Aid Guide and Emergency Procedures for Ships Carrying Dangerous Goods*.



## During is poisoning

The first questions to ask oneself about a case of poisoning or toxic exposure are:

- With what?
- In what quantity?
- When?



# What to do ?

## Poisoning with Ingested Drugs and Chemicals

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- Search the patient's cabin and belongings for empty medicine containers or a suicide note.
- Check the patient's work environment for opened containers of toxic chemicals, especially insecticide and rat poison.
- Check the medical records to see if the patient has been prescribed any medication, either on board or ashore.
- Seek medical advice if you find unidentified medicines.



# What to do ?

## Poisoning with Ingested Drugs and Chemicals

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### *What not to do*

- Do not try to help the patient by giving small doses repeatedly: they are less effective.
- Do not delay giving activated charcoal: it is half as effective given one hour after a poisoning as it is after 30 minutes.



# What to do ?

## Red Flags / Glasgow Coma Scale

Eye opening	
■ Spontaneously	= 4 points
■ In response to a verbal command	= 3 points
■ In response to pain	= 2 points
■ No eye opening	= 1 point
Best verbal response	
■ Oriented	= 5 points
■ Confused	= 4 points
■ Inappropriate words (e.g. swearing)	= 3 points
■ Incomprehensible words	= 2 points
■ No speech	= 1 point
Best motor response	
■ Obeys commands	= 6 points
■ Moves a hand to site of painful stimulus	= 5 points
■ Pulls away from painful stimulus	= 4 points
■ Flexes limbs when painful stimulus applied	= 3 points
■ Straightens limbs when painful stimulus applied	= 2 points
■ No motor response	= 1 point

\*\*\*The score can range from 3 (the worst) to 15 (the best). A painful stimulus is best produced by vigorous pinching of the trapezius muscle (the muscle that shrugs the shoulders and that runs between the back of the neck and the top of the shoulder).



## Common Poisoning agents

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### Paracetamol (acetaminophen)

Paracetamol poisoning is common, largely because the drug is easily available. An overdose can cause liver damage.

Liver damage can be seen if a single dose of paracetamol more than 7.5 g (15 tablets).





# Common Poisoning agents

## Paracetamol (acetaminophen)

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### *Signs and symptoms*

- After 48 hours:
  - pain and tenderness in the right upper abdomen
- After three to four days:
  - evidence of severe liver damage:
    - jaundice
    - confusion
    - bleeding and bruising.



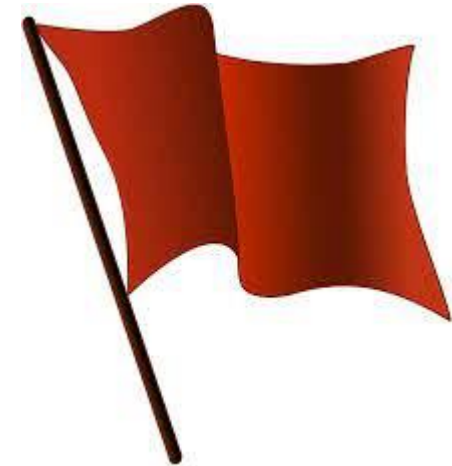
# Common Poisoning agents

## Paracetamol (acetaminophen)

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### ***What to do***

- If the patient has taken an overdose less than four hours previously, give activated charcoal, 1 g/kg body weight.
- If you suspect that the patient has or is likely to develop liver damage, ask for medical assistance.



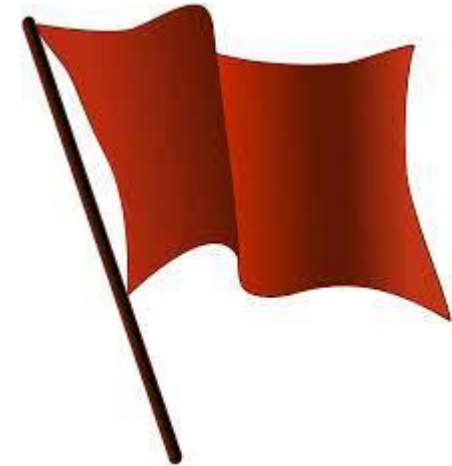
# Common Poisoning agents Acetylsalicylic acid (Aspirin®)

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## ***What to do***

There are several closely related forms of salicylate (or salicylic acid), which all produce the same signs and symptoms of poisoning.

A dose of 10 g (30 tablets) of acetylsalicylic acid or two teaspoons of oil of wintergreen is dangerous in an adult.



# Common Poisoning agents Acetylsalicylic acid (Aspirin®)

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## *Signs and symptoms*

- Rapid breathing;
- nausea and vomiting;
- ringing in the ears (tinnitus), which is nearly always present and is typical of salicylate poisoning.



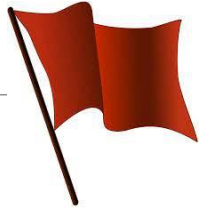
## *What to do*

- Give activated charcoal, 1 g/kg body weight.
- Repeated doses may be needed but give them only on medical advice.

# Common Poisoning agents

## Organophosphate and carbamate insecticides

Poisoning from organophosphate and carbamate insecticides can occur by deliberate self-poisoning. Emergency evacuation is normally required in all cases of organophosphate and carbamate poisoning.



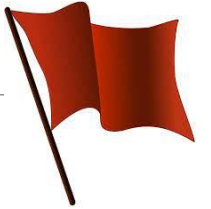
### ***Signs and symptoms***

- Within minutes of swallowing or inhaling, or of skin exposure:
  - tears
  - sweating
  - excessive lung secretions
  - diarrhoea
  - frequent urination
  - small pupils
  - slow pulse
  - wheezing
  - in some cases, muscle weakness.

# Common Poisoning agents

## Organophosphate and carbamate insecticides

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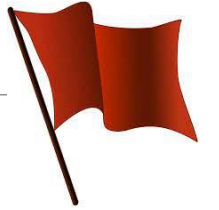


### *What to do*

- Give activated charcoal, 1 g/kg body weight, if the substance has been, or may have been, swallowed, even if symptoms have already appeared.
- Put on rubber gloves.
- Remove all of the patient's clothing likely to have been contaminated by sprayed insecticide and wash contaminated skin with soap and water.
- Give oxygen at the highest possible flow rate via a non-rebreathing mask.
- Give atropine, 2 mg intravenously at once: double the dose every five minutes until the patient stops coughing and wheezing or until you have no more atropine.
- Arrange for emergency evacuation.

## Common Poisoning agents petroleum products

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Petroleum products are generally not absorbed from the bowel: poisoning results from lung exposure.

**Note**

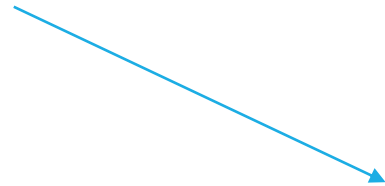
- Asphalt, motor oil and axle grease are not toxic.
- Petrol (gasoline), turpentine, kerosene and cigarette lighter fluid cause lung inflammation if they enter the lungs.



# Common Poisoning agents petroleum products

## ***Signs and symptoms***

- In cases of lung inflammation:
  - breathlessness
  - cough, that may be dry or may produce blood-stained sputum.
- If the brain is affected:
  - drowsiness
  - confusion
  - staggering
  - slurred speech.



## ***What to do***

- Remove contaminated clothing to prevent further exposure to vapours and have the patient shower with soap for 10 minutes.
- If there is evidence of lung damage, seek medical advice.





# Common Poisoning agents

## Caustics

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Caustics cause burns to the oesophagus and stomach.

### ***Signs and symptoms***

- Pain in the chest and upper abdomen;
- vomiting, often of blood.

### ***What to do***

- Seek medical advice with a view to urgent evacuation.

### ***What not to do***

- DO NOT give activated charcoal.
- DO NOT provoke vomiting.



# What is Food poisoning from marine toxins?

## CIGUATERA FISH POISONING

Ciguatera is the commonest cause of seafood toxin poisoning. The toxin is produced by single-celled organisms that grow on coral reefs.

### *Signs and symptoms*

- initially, vomiting and diarrhoea;
- soon afterwards, abnormal sensation (burning, “pins-and-needles”) in the limbs and blurred vision lasting for a few weeks or, in a few cases, for months.



## What to do ?

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### CIGUATERA FISH POISONING

- There is no treatment for the immediate symptoms.
- After recovery, warn the patient to avoid all fish, caffeine (coffee, tea, C ola-type fizzy drinks) and alcohol, which may cause relapse of the nervous system symptoms.



# What is Food poisoning from marine toxins?

## SCOMBROID FISH POISONING

### ***Signs and symptoms***

- Onset within an hour of eating the fish;
- sudden flushing of the face, a feeling of warmth, and a blotchy rash on the chest and face;
- disappearance of symptoms within a few hours.

### ***What to do***

- If symptoms are troublesome, give cetirizine, 10 mg orally.

### ***What to do to prevent scombroid poisoning***

- Avoid dark-fleshed fish caught from boats lacking efficient facilities for onboard refrigeration.



## What is seasickness?

Seasickness (motion sickness) is an acute illness characterized by loss of appetite, nausea, dizziness, and vomiting. Preventive measures may be effective but few medications are effective once motion sickness has developed.



## What to do – preventing seasickness

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Give an anti-seasickness drug can be used for preventing seasickness.

One of the most commonly used medications is the scopolamine-containing patch used to place it behind the ears before traveling. This method is very effective against seasickness, but it should not be forgotten that it leaves the person very dehydrated.



# References

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[1] World Health Organization. (2007). *International medical guide for ships: including the ship's medicine chest*. World Health Organization.