# Should I call DAN or EMS first?

*Please note: though this information is generally applicable internationally, its is specifically addressed to DAN Europe members. As some aspects may differ in case management among the various DAN organisations, we advise divers to get in touch with the relevant DAN organisation in their region.*

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“In the event of a diving accident, where decompression illness is suspected, is it better to call 112 (EMS) or DAN Europe first?” This is a question frequently heard among divers, and one that often creates confusion.

First, let’s define **what a diving accident is in this case**: it’s an event that results in a potential risk of illness or death due to inadequate decompression.

**Decompression Illness (DCI)** includes two main conditions:

- **Decompression Sickness (DCS):** caused essentially by the persistence of inert gas in bubble form (not dissolved) in tissues or blood.
- **AGE, or Arterial Gas Embolism:** for example, caused by venous gas bubbles crossing to the arterial side or by pulmonary barotrauma.

The risk of DCI during recreational or technical diving, and even during work in pressurised environments, is closely related to the conditions and physical exertion involved in the dive. The estimated frequency is approximately 1 in 10,000 dives for recreational divers and 9.5 in 10,000 dives for technical and professional divers (Mitchell 2022).

Unfortunately, a number of cases are underreported because divers sometimes self-treat or do not report symptoms, do not seek care in medical facilities, or the care provided is not properly recorded.



**Diagnosing DCI** is often challenging due to its several possible symptoms, and it requires a clinical evaluation that considers the nature of the dive(s) and the diver's personal health history. Any new sign or symptom after a dive should be considered as "suspect DCI" until proven otherwise.

**Mild symptoms** may include unusual fatigue or skin itching.

**More serious symptoms** include:

- Skin rashes or mottling
- Tingling
- Numbness
- Pain
- Difficulty moving or urinating
- Muscle weakness
- Impaired consciousness, breathing, vision, hearing, speech
- Nausea
- Dizziness
- Reappearance or persistence of mild symptoms after 30 minutes of initial oxygen therapy

**So, who should be contacted first in the event of a suspect diving accident?**

Answer: **It depends on the diver's symptoms and location**.

Having DCS in **Europe**, where numerous hospitals with hyperbaric units are available, is one thing. Experiencing it in **remote locations** or regions without a 24/7 operational hyperbaric chamber for emergencies, is another story.




In case of **MILD SYMPTOMS,** do not underestimate them. In this situation, there's usually a little more time for action. **EMS can be activated**, if transport to a health facility is preferable for diagnosis. **At the same time the DAN Europe hotline should be contacted** for 3 reasons:

1. **Reporting the accident**: If the diver is an active DAN member, the Alarm Centre, case management and DAN medical staff can open a case and provide remote support, which can be invaluable. The Centre will put local medical or paramedical personnel who arrive at the scene of accident and are typically not familiar with diving medicine, in communication with DAN doctors who **specialise in diving and hyperbaric medicine**, to share information, strategies, recommendations.
2. In the event of accidents in remote locations, the diving centre or boat staff are put in touch with medical personnel to receive **immediate assistance** on what is best to do/not to do following a diving accident. This is how the DAN Alarm Centre implements assistance mechanisms locally.
3. The DAN Alarm Centre is **available 24/7** for telephone conversations with everyone, both active (insured) DAN Members and non-Members, as well as with lay and healthcare personnel for discussion and advice.

DCI should be suspected if the symptomatic individual has been scuba diving (open or closed circuit, recreational or technical) or freediving, especially if they have been repeatedly diving to deep depths.

Usually the first rescue manoeuvres are carried out by the diving buddies, instructor, diving guide, or surface assistants. The ideal conditions for a correct management of an accident are: **adequate training** of all divers, the presence of secure means of communication and emergency management material (Oxygen Unit, First Aid Kit); the planning of an accident protocol in case of particularly demanding dives, including phone numbers of the closest facilities equipped with a Hyperbaric Chamber.




***Summing up:*** **What should you do in case of mild symptoms?**

One person should contact the **DAN Europe Hotline** for advice, while others should:

1. Perform a 5-Minute **Neurological Check**:
    1. Ask the diver how they feel, where they are, the day and time.
    2. Check eye tracking with a finger.
    3. Ask the diver to whistle, show teeth, or stick out the tongue symmetrically.
    4. Test balance and motor coordination.
2. Administer **100% normobaric oxygen** for at least 30 minutes, at the highest available concentration (15 L/min), regardless of the gas mixture used, and ideally using a demand valve or non-rebreather mask if the diver is conscious. Although administration may start before contacting DAN, we remind that oxygen is a drug and, in this case, its use should be supervised by a physician.*
3. Hydrate the diver: at least 1 liter of water in an hour, monitoring urination and/or other symptoms.
4. If vomiting or loss of consciousness occurs, place in the recovery position.

**In case of DCS with SEVERE SYMPTOMS**, **immediately alert EMS** (**112 in Europe**). EMS manages the emergency by sending an ambulance on site, providing cardiopulmonary resuscitation (CPR) and/or

other life-saving measures as needed. **The DAN team** is then activated and liaises with the local rescue team, to ensure that the diagnostic and therapeutic procedure is correct. DAN follows the case and remains available throughout the period of necessary treatment – also for all those aspects linked to reimbursements.

From personal experience I can guarantee that the DAN Medical team often provides helpful assistance, even in serious cases, through telephone support, mediation, and education – e.g. supporting colleagues who may not be familiar with underwater medicine, and would not diagnose a diving pathology correctly.

**In case of serious symptoms,** while someone calls **EMS** and clearly states a **"diving accident"**, others should:

- Perform CPR if needed.
- Administer 100% oxygen at 15 L/min using bag-mask ventilation. As previously mentioned, oxygen is a drug and should be used under medical supervision. *
- Call the DAN Europe hotline.

DAN *cannot in any way* replace an equipped First Aid centre or a clinic nearby where we would like everything to work 100% in the best case scenario.



**So, "DAN or EMS – who's better?"**

In the best-case scenario, the two entities will work together synergistically. Sometimes only EMS will be alerted, possibly resulting in a successful intervention. Other times, DAN will be contacted by NHS personnel for specialised guidance on how to proceed, or even directly by the injured diver after calling EMS first. It's not about choosing "who is better" – it's about understanding the context and adapting the

response to the specific situation.

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*When a doctor – ideally specialised in underwater and hyperbaric medicine – is not available on site, assistance can also be provided remotely, under supervision. Our approach is that first responders, who are not doctors but have been properly trained and certified through DAN first-aid courses, can intervene promptly to administer oxygen to divers in difficulty. In such cases, our team of experienced doctors provides remote support to ensure effective and safe assistance.

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**References:**

Mitchell SJ, Bennett MH, Moon RE. Decompression Sickness and Arterial Gas Embolism. N Engl J Med. 2022; 386(13):1254-54.