



**PENELOPE GRANYCOME** has written before about feeling the effects of cold water but, not wanting it to become an obstacle to enjoying UK dive-sites to the full, she and a friend seek help from the experts of GUE

# Feeling **the cold** is off-putting – but it's all about **preparation**

**"GOT CHILLS, THEY'RE MULTIPLYING"** is not a thought any diver ever wants under water. Not only is the likelihood of the chills diminishing non-existent, but the rapidity with which being cold can escalate into something far more serious is real.

In cold water, a serious medical emergency might be minutes away if no immediate action is taken.

Having often taken to summer-cold UK waters, with temperatures averaging 18-21°C, but always feeling that tinge of discomfort in my regular drysuit and not feeling built for the cold, the notion of diving in single-digit temperatures in my present gear alarmed me.

As it did my friend Rachel who, as a coldwater-phobe, was adamant that neither hell nor high water would get her dusting down her regs until things warmed up.

We simply did not trust that we could be warm and happy in moderately cold waters. We needed concrete advice.

I sought it from Richard Walker, not only one of the most experienced Global Underwater Explorers (GUE) rec and tech instructors, but also an instructor evaluator as well as government liaison on its advisory board and a scientist with a PhD in the physics of blood-flow.

Anything Richard didn't know about diving and warmth would hardly be worth knowing, I felt.

First came a thorough assessment of our existing gear via email and phone, and a discussion of our fears of being too cold.

Beliefs in what we can and can't achieve can easily become grooved in. Richard counteracted this by suggesting often neglected practical steps intended to boost our comfort while helping to prevent decompression illness, hypothermia and loss of clear thinking.

**WE WERE EACH** measured up for a state of the art Santi BZ400X undersuit, and advised that an old collarless 5mm hood like mine would offer scant insulation.

Years-old neoprene and undersuits that compress under water will do little, and if a hood fails to protect the neck area, heat can be lost quickly where the carotid arteries run close to the skin, carrying

a fifth of our cardiac output.

Richard suffers the same cold-hand circulation issues as me, and advocates dry gloves that not only allow dexterity (unlike that constricted feeling with thick neoprene) but can be bolstered with the use of silk liners.

Ditto for feet, where a wicking base-layer and woollen socks like those used for walking will withstand compression.

Richard explained that even the best gear will fail to work optimally if we are not rested, hydrated and nourished.

Neglecting these requirements in very cold conditions will exacerbate fatigue, chills and the rate at which we lose heat.

In an email two days before diving, Richard reminded us to stock up on carbs (glycogen) with plenty of water, not only to make the blood less viscous but also to replace sweat lost in keeping warm.

Extra insulation worn before diving



every factor reduces the likelihood of getting cold quickly, and how ignoring any one can take a diver quickly to the deep discomfort / danger zone.

Start warm, kit up warm with a thick undersuit that does not compress (to create more distance between your skin and the cold), deal with extremities, hydrate and use a thin wicking layer to prevent that clammy feeling.

And no prizes for the length of our two dives. We were to signal to Rich on a scale of 1 to 5 how we felt as each progressed.

**WE EDGED INTO** the water. For me, the sinking feeling would not come. Rach was not yet in her Santi undersuit – as a control – so while she patiently waited with Christine at the surface (not ideal) we added 2kg in my pocket. Nothing. More in my weight-pouches. No.

I finally clambered out and Richard gave me a weight-belt with a whopping extra 6kg. I was flabbergasted that two new layers of thermals would require that much offset! To be expected, he explained.

The dive was wonderful. We followed the plan and swam to a taxi, over the angel and inside a plane. At 12m I checked 8°C on my computer. I felt as warm as toast.

Twenty-five minutes later I was still as cosy but had over-added air to my suit rather than use my BC, so

became too positive on the (sneaky) slope up and could not dump fast enough.

On the second dive I found the perfect balance and Richard had us both perform an effortless hover at each metre of ascent.

Rachel suffered a drysuit leak on her first dive so did get cold but, like a trooper, rewarmed and donned the Santi. "When I got back in I didn't feel cold at all," she said.

Mind you, she had been wearing a heated vest too! According to Richard, if you don't cut corners you shouldn't need one, and it should never be a substitute for proper exposure protection.

The day was a marvellous lesson in physiology, practical steps and refinement of skills from an instructor so expert, relaxed and convivial that we let him get away with "goggles" and "flippers"...

For this and other courses, contact Richard via [wreckandcave.co.uk](http://wreckandcave.co.uk)