

Text by Matt Jevon
Underwater photo by Olga Torrey

Two hours into a cave dive and just about to turn based on the dive plan, I have at least a two-hour swim back out, stages to find and pick up, and a number of jumps and T's to navigate to safely exit the cave. I am mentally and physically stressed, and just short of halfway through the dive. I am, however, in fact loving being in the cave, loving what I am seeing, and loving the stress—it's keeping me sharp, focussed, team-, self- and situationally-aware.

We have become "conditioned" to stress being a negative issue, and of course "distress" is extremely negative and often debilitating. But positive stress, or *eustress*, is, in fact, a key motivator, focuser and driver for the best performances in sport, in life, and most importantly, in diving. Let's examine what stress is in more detail.

Being stressed is our response to a stressor—that is, a challenge and/or situation we face. Stress is the degree (intensity of reaction) and direction (positive *eustress*



Managing Stress in Diving

OLGA TORREY

or negative distress) to the stimulus of the stressor. How we will respond or react will depend on how we read and process the demands we perceive the stressor is going to place on us.

This depends on many inter-related factors. One factor is the nature of the stressor. If it is physical, we will probably

react physically; if it is emotional, we will make emotionally driven judgements; and if it is mental, we will try and "work out" our response. In addition, we each have a predilection for a particular type of reaction. Some people are naturally "thinkers", others are driven by feelings, and others prefer to act. Different envi-

ronments may also drive us to a particular type of response. Of course, many stressors are multifaceted, so it is not possible or appropriate to state that there is a "one-size-fits-all" way in which we handle stress.

So how does this work in real life?

When presented with a stressor, we will make (often subconsciously) two key decisions. Firstly, we decide if it is relevant to us (e.g. There's a great white shark. Is it interested in me?) We then instantly compare it to previous experiences, beliefs and knowledge (e.g. Yep, the great white is potentially a threat, or stressor,

Positive stress, or eustress, is, in fact, a key motivator, focuser and driver for the best performances in sport, in life, and most importantly, in diving.



PHOTO COURTESY OF ROSEMARY E LUNN

that is relevant to me, as we are sharing the same patch of ocean).

The second decision we have to make is whether or not we believe we can cope (believing is more important than the reality of whether we can actually cope or not). This decision can be

made instantly, if emotionally driven; very quickly, if it is a conditioned behaviour; or more slowly, if we stop, think and solve the problem.

Whether we become positively or negatively stressed depends on whether we believe we have enough resources (e.g.

previous experience, equipment, training, skills, recent practice, help from team mates, etc.) to cope. This perceived coping potential is huge: If we believe we can cope, this is when we can "survive the unsurvivable", but if we perceive we cannot cope, we may end up as casualties.

Stressors

Stressors perceived as relevant and positive, even at a high intensity, should result in increased focus and concentration, faster choice and execution of skills, greater self-, team- and situational-awareness, and a feeling of anticipation and excitement, while completely controlled, physically.

Stressors perceived as relevant and negative will result in indecision, negative emotions, confusion leading to panic, poor choices, attentional narrowing and self-isolation.

Stress management then is about handling the stress reaction appropriately by addressing the controllable factors that exacerbate the response, and by increasing our perceived coping potential. This means increasing our actual coping potential as well. In this way, we can still be positively stressed, leading to all the virtuous benefits I was enjoying on my cave dive, for instance, and avoid the pitfalls and disasters of negative stress.

It is also risky to assume that for a given stressor, we will have a consistent reaction. On a good day, it could be a positive reaction. If some or all of the following factors are not optimal, they will influence our stress response and direction. These factors include:

Fatigue – As we tire, we default towards an emotional response. Emotion places high demands on the resources we need to think and act our way through the situation.



PIXABAY / PUBLIC DOMAIN

Dehydration

– Proven to decrease our ability to think, which worsens with fatigue

Emotional state – Even a bit of bad news before the dive, an argument with the spouse, or an incident of road rage increases emotional activation, increasing the likelihood that one's response will be emotional in nature.

Poor nutrition – Low blood sugar levels can decrease our ability to cope with the natural hormonal response to stress, as well as contribute to fatigue.

No recent experience – Our trained and experienced reactions to situations fade quickly out of memory and physical ability. The longer we have not been exposed to the situation, the greater the delay in recalling past skills, training and experiences, and selecting an appropriate response. Sports skills (including diving)

degrade by a third after only two weeks without practice.

Consequence

– A stressor in a cave, or at 100m, is going to have far greater consequences than one on a 10m scenic dive. The greater the perceived consequence—and the key word here is "perceived"—the more severe the stress reaction will be.

Preparation is key

Our best strategy to manage stress is to prepare for the things that predispose us to distress or make it seem worse when it occurs, e.g. fatigue, nutrition and hydration levels. Be fit to dive, get a good night's sleep, eat well, stay off the booze, and drink plenty of water, checking morning first urine colour for hydration. (Bear in mind, hydration must be consistent over several weeks. Upping the fluid the day or two before a dive is literally pissing in the wind.) Recognise the good stressors and welcome them and your responses,

Whether we become positively or negatively stressed depends on whether we believe we have enough resources (e.g. previous experience, equipment, training, skills, recent practice, help from team mates, etc) to cope.

occurs, e.g. fatigue, nutrition and hydration levels. Be fit to dive, get a good night's sleep, eat well, stay off the booze, and drink plenty of water, checking morning first urine colour for hydration. (Bear in mind, hydration must be consistent over several weeks. Upping the fluid the day or two before a dive is literally pissing in the wind.) Recognise the good stressors and welcome them and your responses,





training



PIXABAY / PUBLIC DOMAIN

knowing they will enhance your dive performance.

Distress

Let's focus on the distress part, as stress management in diving is pretty interesting. Most of us, at one point or another on a dive, have been a little distressed (e.g. swimming in a current, experiencing a gear failure, or put under multiple pressures by an instructor during a drill, etc). I am guessing that if you are reading this article, you survived the distress and hopefully learned from it. Maybe you added extra coping skills (more training or back-up gear), or you increased your perception of your ability to cope, having executed a great choice well to manage the stressor. You should have accrued experience, which

you can refer to when making your two key appraisal decisions on relevance and coping ability.

We have all heard, though, about the distress situations (e.g. the sudden panic rush for the surface, missed decompression stops, ripping out a teammate's regulator). Steps can and should be taken to minimise the chances of the response resulting in these destructive behaviours.

Stress management then is about handling the stress reaction appropriately by addressing the controllable factors that exacerbate the response, and by increasing our perceived coping potential.

This means increasing our actual coping potential as well.

Training the dive mind

Pre-dive emotional status, if less than ideal, can really increase the risk of a disproportionate emotional reaction to any incidents. We want to go in the water with a calm mind, solution-focused reactions preferred.

So, you got up and left, to the spouse saying: "Oh, diving again, is it? When will you be back? You won't be drinking with your bud-

dies again, will you? How much was that new dive thingy you just bought?" Then, you got stuck in traffic, which made you late for the boat. Some inconsiderate person pinched the last parking space, so you had to haul your gear for miles to get to the boat, and the skipper is treating you like a recalcitrant toddler. Add in a bad trip out and 20 minutes waiting for the shot to hit metal, and I am guessing that your emotional status is not evenly balanced. How can we regain the equilibrium? It is going to take a few new skills. The best way to apply these skills is to put them into an emotional control routine. This can then be transferred to any situation, in or out of diving, and may save you some bruising to the knuckles.

Step 1. Find a place where you can be undisturbed for a couple of minutes. Sticking on some headphones works for some people, even if the music is not on. If you do have music, listen to a tune you find calming, but not so relaxing you go to sleep. We want to be calm, clear-headed and focussed, not so chilled, we are snoring.

LIGHTWEIGHT CHAMPION

(only 2kg)



D9 BREATHABLE

- 4-Layer Breathable Ultra light shell
- Flexible TIZIP Master Seal Front zipper
- Fabric socks
- Quick-Dry
- Latex seals
- Warm cuffs
- SI TECH valves
- Telescope Torso
- Seam free crotch
- Fabric socks
- Integrated suspenders
- Pre-bent knees
- Knee reinforcement
- Zipper cover

www.waterproof.eu





Our best strategy to manage stress is to prepare for the things that predispose us to distress or make it seem worse when it occurs.

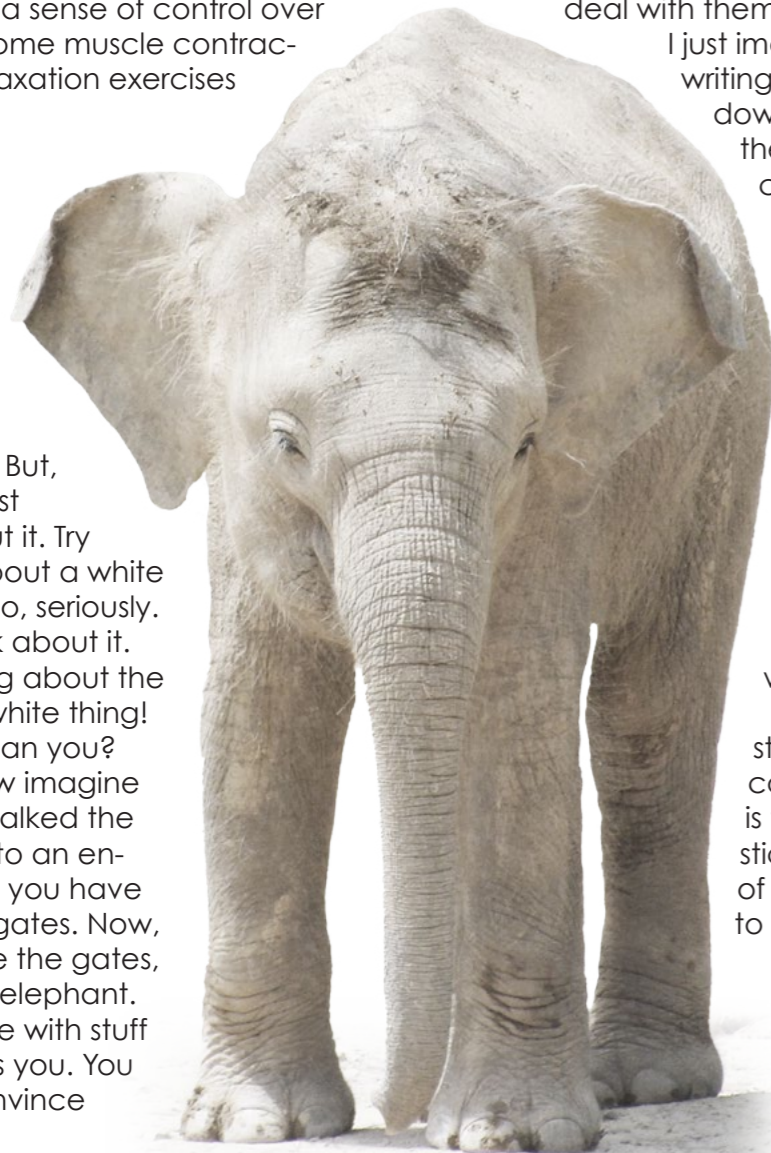


PIXABAY / PUBLIC DOMAIN

Step 2. Engage in some deep tidal breathing, not to relax, but just to gain a sense of physical control over the body. Deep breathing is naturally associated with a sense of control over the mind. Some muscle contraction and relaxation exercises can help.

Step 3. Park all the crap that is currently bothering you, or has the potential to bother you. But, you can't just forget about it. Try it. Forget about a white elephant. No, seriously. Do not think about it. Stop thinking about the big-eared white thing! You can't, can you?

Okay, now imagine you have walked the elephant into an enclosure and you have closed the gates. Now, you can see the gates, but not the elephant. It is the same with stuff that bothers you. You have to convince



PIXABAY / PUBLIC DOMAIN

your subconscious mind, which is rather like a hyperactive child, that you are not trying to forget its concerns, but you are putting them away and will deal with them later.

I just imagine myself writing my troubles down and putting them in a box I can open up later. I then imagine putting this box with all the issues away in a safe place. I use a pocket of my dive bag. I do not want to bring this stuff on the dive, so a drysuit pocket will not do.

The key to stop these issues coming back is to plan and stick to the plan of coming back to the issues and dealing with them at the right time, i.e. when you

are not diving. If this does not work for you, there are other techniques.

Step 4. Choose the right mood in which to be. Personally—and I encourage this mood in my teammates and students too—I like to be a little bit “up”. I think a small degree of “being up for it” gets me over the danger of complacency that comes from doing this or similar dives hundreds of times before. I do not like the concept of relaxing before the dive. I think it is all right once you are in the dive, to relax into it after all the pre-dive and start-of-dive planning, what-if and safety drills have been done. It is choosing the optimum level: too excited, or worse, nervous, and you will miss stuff.

To get into the optimal mood, I use cues that key into it—e.g. music, a few key words, set physical routines such as gear preparation or putting on a drysuit—and some imagery that recreates the perfect mood for the dive.

Step 5. Rehearse the dive plan (using imagery—all senses, not just visualisation—only seeing it) and if the mood does not change, then a bit more positive excitement is all right. All, then, is good. Rehearse using imagery with the team.

By this point, the chances of any

stressors having a disproportionate affect is greatly reduced. At this stage, put the consequence into context of your planning and preparation. Okay, it is a 100m dive, but you have built up to it with a good few 60m, 70m, 80m and 90m dives. Gear and gases have been thoroughly tested and checked. You have a great team, plus safety divers. There is ample backup. Conditions—including the environment, the team and vitally, your attitude and approach—are optimal.

If the rehearsal, either your own imagery or with the team, is not smooth and clear, then you are not ready to go and should not dive until you have a great mental and actual run-through of the plan. Treat it like there has been an equipment failure. There has—your head!

A solid consistent pre-dive routine is pure gold in psychological terms.

Rehearse the dive plan

Start to engage in the normal pre-dive routines: flow checks, safety and buddy checks, final plan reviews, safety drills, descent and bubble checks, etc. What can reinforce the value of these measures is to

create an association between the physical routine and consistency in your thoughts at each stage of the routine. It is not just something you do, but it has meaning for you.

Think about why we do each check.



© J. Haschek

EXPLORE THE
**UNDERWATER
WORLD**



BS KINETICS | **EXTREME**
PHOTO & VIDEO | **CARBON FIBER**
UW HOUSINGS

www.bskinetics.com



PIXABAY / PUBLIC DOMAIN

Not only does this ensure you are ready, but it also reinforces the why (e.g. Check your long hose is clear. Yes, it is safely clear, which reinforces that this gear is our response to an out-of-air diver). Turn your stage on for a bubble check. Yes. This check ensures the stage is pressurised but also "fixes" in your mind where the stage is, how it is marked, what stop or drop point it is for, and ups your confidence, knowing it is working.

A solid consistent pre-dive routine is pure gold in psychological terms. Firstly, it will provide all the mood and attitude cues you want. If it does not, you need to refine

The better trained I am, the more I have physically practiced the response skills and if I have previously used imagery to really embed the response, then the faster I will decide and execute.

the routine. Secondly, it will have checklists, even if they are not written or ticked off (though that is a great practice, especially until your routine is rock solid). Thirdly, you will find that you shut out all but the most relevant or required stimuli from the world around you—you are very difficult to distract. As a sense check: if you can be distracted, again, your head is probably not in the right place. You can rehearse this routine time and again, without

being any nearer the water than your own bathtub! Practice, psychologically, is as important to

do as physical skills practice, and usually takes more time.

In water, there are a great number of stimuli and occurrences that can cause us to have a stress reaction. Some of these are obvious and immediate, e.g. a free-flowing regula-

tor, a burst hose, a silt-out. Others are more insidious, e.g. an onset of thermal stress, dehydration and often narcosis. Developing appropriate and timely reaction to these stressors is vital.

START

Stop, breathe, think, act is the reaction that is often suggested—tough to do if you are out of air, in a free-flow, have potential hypoxia or hyperoxia in the loop! Stop for sure and

identify relevance and coping skills. Then, ideally, execute a conditioned and fast response to stimuli. Rather than breathe, I like to anchor to a physical cue (e.g. hands on valves) and use a mental cue ("Focus, Matt!") before I decide if a nice

deep breath is a safe course of action.

What I prefer is to use the acronym START, to ensure that I have prepared responses for all foreseeable issues that can occur on a dive. Where possible, the responses should be similar and well-practiced under simulated stress. Stop, anchor thoughts, focus mind, judge relevance and coping, execute or decide then execute. The response should fit into this acronym:

Self
Team
Action
Revue
Think

Let's look at each part.

Self. Your first recourse in any stressful situation is you. It is you that needs the first attention, to get a grip on yourself and the relationship you have to the stress. The best way of doing this is to use a technique called anchoring. Anchoring brings the psychological and physical attention back onto you in a controlled way. A



PIXABAY / PUBLIC DOMAIN

deep breath is often a good anchoring technique. But for reasons previously discussed, I am not a fan of this technique for diving.

Then, accurately and quickly identify the stress source. For example, on a closed-circuit rebreather (CCR) or on your dive computer, an alarm is a stressor, but it is not specific. It could be an ascent rate warning, a cell warning, a low PO2. Other than drawing your attention to the source issue, the alarm is actually no use to you and is a source of increased

stress (I often want to take a large rock to people's constantly beeping computers!). We need to condition ourselves, through training, to respond to alarms with a calm, "Right, what's that!?" as opposed to a fluster of agghh's and oh sh*t's. Accurate identification of the issue and a good assessment of our ability to cope is of more value. Not once in my training, by the way, did I ever have an alarm beep or buzz simulated. I had the issues simulated on a card, which read "High PO2", for example. We



PIXABAY / PUBLIC DOMAIN



PIXABAY / PUBLIC DOMAIN

need to add simulated auditory alarms into training—physical and mental—especially for CCR.

So my reaction to an issue is, ideally: to centre myself (e.g. hands on valves), do self-referenced talk (e.g. "Focus, Matt"), then identify the issue. This takes about half a second to two seconds maximum, depending on the issue complexity. If the issue is critical, I am also perfectly placed to respond, as that probably involves gas loss or O2 shutdown! I decide if action is needed, based on well-practiced responses trained in simulated stressful situations, then implement the response. The better trained I am, the more I have physically practiced the response skills. And if I have previously used imagery to really embed the response, then the faster I will decide and execute.

Team. I need to check how my team responded. A great team will be right by me by now, especially if my chosen solution has, as it should, included a clear signal to them. At this point, they are checking my issue diagnosis, checking the response I have made or am making

for correctness, helping out if that is the way we practice as a team, and most importantly, checking that my head or emotional state is okay.

Action. What next? Abort the dive, check my gas and decompression penalty. The team should be involved, either to implement a pre-planned action (e.g. light failure in a cave: Exit) or to check recalculated turn pressures or decompression requirements. The key is that this is a team decision, based on having averted the immediate crisis, and is done at a reduced and shared stress level.

Review. At the most appropriate point, the immediate response, the solution and the team's responses

and action should be reviewed. This should be as soon as possible—maybe once back at the shot line or maybe on the longer 9m or 6m decompression stops. If the soonest most appropriate time is back on the boat or at the dive centre, then that is when it is done. Hopefully, what you are then doing is affirming that all the right steps were taken. If not, then there is a training issue.

Think. Did the incident occur due to lack of training or practice? Was it an equipment or skills failure or a clarity of thought and action failure? How did you feel as the situation evolved? If my reaction was intense or involved uncertainty or early signs of stress or panic—regardless of having solved the issue—I would set up and practice scenarios on a controlled training dive until I was very confident in my solution. Do not just be pleased with yourself that you "got away with it". Be self-critical. If you do not know how you got away with it, seek advice from an instructor who "gets" this stuff (not the Internet forum or your mates).

Response training

There are issues here for your training. Good dive instructors will expose you to 95 percent of the potential stressors you will face. They will train and encourage you to practice the appropriate response and repeat them until the techniques become skilful and second nature. In dive planning,

your instructor should ask you to do a "what-if" plan (plus 3m plus 3 minutes), plus "what if x or y happens?" The further into technical or cave diving you go, the more skills and responses you learn.

Try this, though: Write down 10 problems that can occur on a dive, not too common. Now write down your response. Was there enough detail in the response to meet the START criteria above? Is there something in there that focuses you and de-powers any emotional reaction? Can you close your eyes, and using your imagination, see, feel and hear clearly (using imagery) the issue and response? If not, then a solution re-plan and purposeful practice is required.

Psychological skills are harder in many ways to learn and master than physical skills. They need clarity—this is the skill part of it—they need consistency, and they need a lot of practice and repetition. Just like the physical skills, psychological skills

need quality practice, with real intent and purpose. ■

A native of the Republic of Ireland, Matt Jevon, MSc., is an experienced and passionate open and closed circuit 100m trimix diver and full cave diver. Whether using backmount, sidemount or his favourite JJ-CCR rebreather, Jevon believes technical diving is all about being safe, having an awesome dive and enjoying experiences few people share. Jevon holds instructor qualifications from TDI, PADI TECREC and IANTD, and partly owns South West Tech—a TDI dive centre in Ireland. Jevon is also an approved JJ-CCR instructor and dealer. In addition, he is a sports psychologist, senior rugby coach and works in strategy and private equity. For more information, please visit: www.swt.ie and www.mattjevon.com.



PIXABAY / PUBLIC DOMAIN



PIXABAY / PUBLIC DOMAIN