

DDRC Healthcare – looking at things slightly differently... DCI



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This presentation has been put together by DDRC Healthcare. It focuses on some of the real-life issues surrounding divers' understanding of, and attitudes to, the signs and symptoms of DCI.

Some of the DDRC research findings are very revealing and DDRC hope that you as divers can learn from the misunderstandings of others, as well as the issues surrounding DCI when divers are treated at the chamber!

What are we going talk about?

DCI and denial

Myth vs truth

Text book vs the real world

DDRC research data

What do divers really think when someone gets signs and symptoms of DCI?



First of all why should we be motivated to sit and listen about the real life experiences of divers when they have symptoms of DCI?

Simply because when a diver suffers signs and symptoms of DCI, the scenario is rarely text book perfect as learnt in the sterile environs of the class room!

As divers, if you can hear and learn about real life attitudes and research data, it will help you to be a more informed and responsible diver, and you will be thinking outside the box in future, and not relying on diver myths, or a perfect text book scenario.

DCI and Denial

Q. Who can get bent?

A. Anyone who goes diving!

Deep divers

"I can't have DCI, I followed my dive computer"

Cold water divers

Inexperienced divers

"I've done thousands of dives, I can't be bent"

Stupid divers

"Only divers who have done something wrong get bent"



So who exactly does get "bent"?

You hear it all the time, "they were taking risks, they were inexperienced, they were stupid", "the computer said it was OK, I didn't do anything wrong", and so on.

Perhaps it's time to put some of these myths to bed, and face up to "who really can get bent?"

The very simple answer is – *"anyone who goes diving!"*

DCI and Denial

Classroom versus real world

Symptoms of DCI taught in the classroom

Upper limb or joint pain

Dizziness/disorientation

Visual disturbances

Inappropriate fatigue/weakness

Difficulty in speaking

Skin itching/tingling

Lower limb or joint pain

Skin Rash

Chest pain or breathlessness

Partial paralysis

Loss of sensation/numbness

Problems with thinking, memory
or performance



Starting at the beginningHere is the typical list of symptoms we are taught to look out for, when learning to dive, that may indicate a diver has DCI.

The problem with typical symptoms is they don't present themselves in a typical way! And this is where there seems to be a great deal of misunderstanding and confusion amongst divers of all ages, and experience.

DCI and Denial

Classroom versus real world

What divers thought had caused their symptoms

Sea-sickness	Arthritis
Cramp	Indigestion
Dehydration	Trapped nerve
Low Bp	Pulled muscle
Hunger	Old sporting injury
Prickly heat	Hot and tired
Water trapped in ear	Hangover
Thought it was a stroke	Marks from sitting on a chair



So let's look at this another way – what conditions do divers and their buddies commonly mistake some of these “typical” DCI symptoms as?

In their research the DDRC asked a large number of divers, who had been treated for DCI, what they thought their initial DCI symptoms were, and the list was long, very varied, and revealing!

And, it might interest you to know that all of the mistaken conditions listed here turned out to be DCI.

Stop and think a moment, how the symptoms of these conditions may have the same symptoms as illustrated in the previous slide.

If you have been diving in the last 48 hours you always need to consider DCI.

Note: opportunity here to discuss amongst the audience and lecturer the two slides and symptoms of the various conditions

DCI and Denial

What *other* divers thought about DCI symptoms

“Drink water and say if it gets worse”

“Wait for it to develop sufficiently to confirm DCI”

“No-one really worried as many in the group had been bent before!”

“Nothing to worry about as diving with computers and the stops were good”

“Shouldn’t have such a heavy camera”

“Wasting time”



Next we asked the **buddy** what he/she thought had caused the symptoms, and what was the attitude of the buddy and other divers.

As in the previous slide (comments by the diver with DCI), all the comments in this slide are real life happenings – real attitudes!

Wait for it to develop sufficiently to confirm DCI!

*Do you **really** want to wait until you can’t walk or “pee” before your buddy or other divers do something about getting help, and getting you treated?*

Just because everyone else may have ignored their previous DCI symptoms – is that a good reason for you to ignore yours, and maybe incur irreversible lasting damage?

Dive computers and “good stops” do not protect you from a “hit” – your dive profile can be as perfect as you can make it – but you still run the risk of DCI.

The truth is – we (researchers) do not fully understand why two people can do the same profile with only one diver ending up in the pot bent.

Wasting time – never! Never be afraid to seek advice - if you have been diving and things are “not right” then seek advice from the people in the know.

Doctors and hyperbaric facilities NEVER consider giving advice to a diver with doubts and/or symptoms who has been diving as a “waste of time”.

DCI and Denial

And.... the “emotional issues” of the diver with DCI!

- Anxiety
- Shame
- Humiliation
- Guilt
- Incompetence
- Exaggerated fears of treatment
- Fear of inability to dive again
- Real concern for physical well-being



And what about the “denial” or “emotions” of the diver with DCI? All the emotions on this slide have been voiced by divers treated with DCI for as long as anyone can remember – DCI seems to be akin to “diver AIDS” – experienced divers have been known to be insistent that “news doesn’t get out I’ve been treated for a bend”, and some divers even in total denial there is anything wrong even when being treated in the chamber!

DCI and Denial

More myths & reasons for either not reporting or delaying

- Felt like a time waster
- I wouldn't be able to dive again, worried about work, not able to go on dive holiday
- Treatment means need to get medical referee and not self certify in future
- Too embarrassing
- The profile of the dive - no reason to get a bend - had never considered getting DCI
- If you report a suspected DCI you will be restricted by from diving, and you will need an annual medical rather than self certify which costs money, so I opted to self treat with 100% O2 until symptoms went away
- Spoiled holiday, second day of live aboard, lost holiday
- Afraid to admit mistake



The reasons for not reporting symptoms and seeking help are diverse – here are the answers:

You won't be wasting time

The chances are you will be able to dive again

It isn't embarrassing

You can have the most perfect profile and still get bent

What is more important - the cost of a medical or your health?

If you take a holiday you should have insurance!

And..... there is no such thing as perfection - we all make mistakes!!

DCI and Denial

Even more reasons for either not reporting or delaying!

- Thought it might have been something else other than DCI until feeling in legs went
- In general I do not report illness unless very serious - I was in a foreign country and didn't want to jeopardise my holiday
- I felt very silly - who gets bent doing 8m for 35mins bottom time
- Had happened before and it went away with O2
- Fear of serious consequence
- Fear of making a scene - fear of being right and wrong at the same time - fear of what others would think
- Embarrassment of situation getting a hit whilst I was the most experienced diver on the trip
- Diving for scallops for a living - grey area with HSE



The list is endless....

How serious do the symptoms have to be before other divers take action?

What *is* more important – the holiday or your health?

Never feel silly – anyone who goes diving can get bent. One of the most serious cases of DCI that DDRC ever treated was a diver who had done a series of training dives at 9 m.

Just because the obvious symptoms went away, it doesn't mean that all is well

Fear is hard to overcome in whatever form – never fear what others may think, or of making a scene

Decompression illness has no respect for experience!

And - It isn't a grey area if you get a hit!

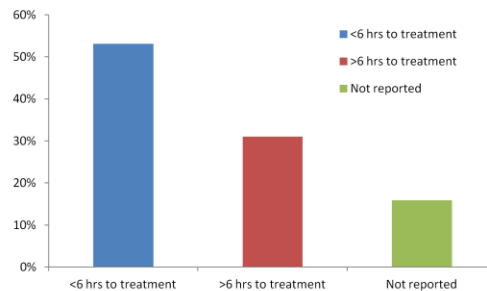
DCI and Denial

So how soon do divers seek help?

Some divers seek treatment within a reasonable time frame

Some divers wait several hours/days before seeking treatment

Some divers fail to seek any treatment at all

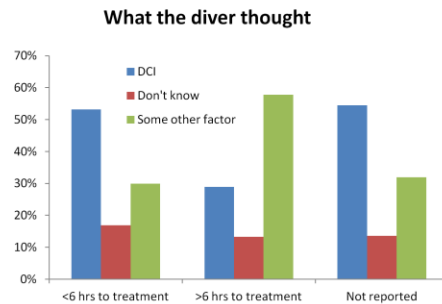


So with all these myths, attitudes and mistaken diagnosis amongst divers going on, the research team looked to see how soon divers sought help and were treated in a chamber.

There were three categories –divers who sought help and were treated in less than 6 hours – and divers who waited longer than 6 hours, sometimes waiting days before seeking help – and those divers who experienced symptoms, and by their own choice did not get treated at all.

DCI and Denial

How easily do divers and their buddies recognise DCI symptoms?



And just how easily did the divers and their buddies recognise the signs and symptoms of DCI?

Still using the three categories of –less that 6 hours, more than six hours, and not reported, – you can see that this chart makes interesting viewing!

This chart shows what the **diver** was thinking.

In the “less than six hours” group, over 50% of the divers knew it was DCI, and as would be expected sought help, but just under one third didn’t know what had caused the symptoms.

And as you would expect in the “more than six hours” group, nearly 60% thought it was some other factor

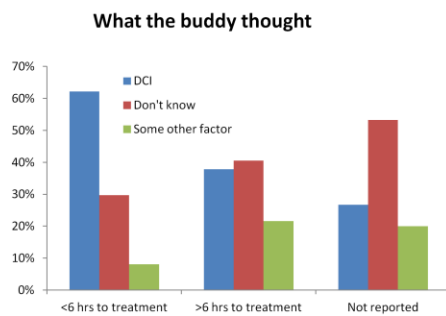
But - over 50% in the “not reported” group *did* actually think it was DCI, but chose to do nothing about it at all. About one third of the same group also thought it was some other factor, and a small percentage did not know at all.

So this chart demonstrates an interesting trend of denial, recognition, and ignorance.

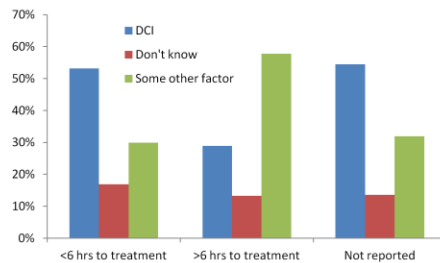
Note: opportunity for group discussion here

DCI and Denial

How easily do divers and their buddies recognise DCI symptoms?



What the diver thought



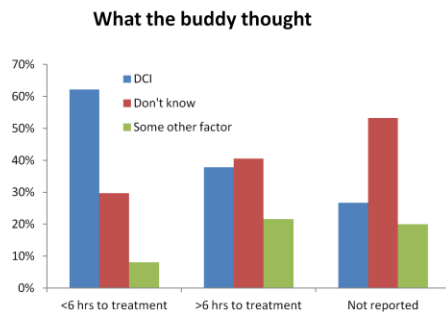
Next the researchers asked what the **buddy** thought had caused the symptoms. The results showed in the group that did not report the symptoms, that over 50% of buddies did not know the cause, whilst in the less than six hours group over 60% thought it was DCI.

It is interesting that when comparing the two charts you can see that if the diver did not think it was DCI then he/she was more likely to think it was some other factor. However in contrast, if the buddy did not think it was DCI then they were more likely to not know what was causing the symptoms!

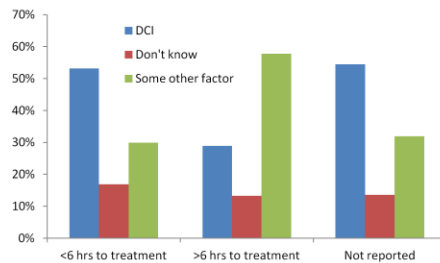
Again demonstrating an interesting trend of denial, recognition, and ignorance.

DCI and Denial

How easily do divers and their buddies recognise DCI symptoms?



What the diver thought



31% DCI

8% didn't know the cause

10% some other factor

51% no agreement at all



Next the DDRC research team wondered how much *actual agreement* there was between the diver and the buddy in recognising the symptoms.

When the diver's data and the buddy's data were compared for agreement it was quite shocking to see that in *51% of the records – there was absolutely no agreement at all* – and only 31% of divers and buddies were in complete agreement that the symptoms were DCI!

DCI and Denial

So Think diving injury

Divers do not always relate the symptoms to DCI

The symptoms are *not always exactly* as listed in the text book

Divers do not always see some symptoms ie. skin itching and/or tingling, as potentially serious

Divers who wait more than 6 hours tend to think it was some other factor



So what is the take home message from all these data?

Divers do not always relate the symptoms to DCI

Divers should remember that symptoms are not always *exactly* as listed in the text book

Divers do not always see some symptoms ie. skin itching and/or tingling, as potentially serious

Divers who waited more than 6 hours before seeking treatment tend to think it was some other factor

DCI and Denial

Are you facing the truth?

You can still get “bent” with the perfect dive!

Do not “wait for it to develop sufficiently to confirm it is DCI”

Delay to treatment *may* result in lasting damage and residual symptoms

Think - pecking order and peer pressure

Just because the diver with the symptoms is an instructor with many more dives under his weight belt than the rest of you, don’t think he knows best



Remember you can still get “bent” with the perfect dive!

Do not “wait for it to develop sufficiently to confirm it is DCI”

Delay to treatment *may* result in lasting damage and residual symptoms

Think - pecking order and peer pressure

Just because the diver with the symptoms is an instructor with many more dives under his weight belt than the rest of you, don’t think he knows best

DCI and Denial

Are you taking responsibility?

Think - do not defer to others who may be badly informed

Never assume the diver with the problem is in a position to make a reasoned judgement concerning management of their incident

The chances are he/she isn't!

Divers as a group *must assume responsibility* for taking action to ensure the well being of a diver who displays possible signs and symptoms of DCI



The bottom line is about taking responsibility and often thinking out-side the box.

Because of the way in which DCI affects the diver with the symptoms, it is highly unlikely that the diver with the problem is in a position to make a reasoned, rational judgement regarding the management of their incident.

Divers *as a group* must assume responsibility.

If there is any doubt at all - take action! Seek advice!

DCI and Denial

In summary

Anyone who has been diving can get DCI

You do not have to “do anything wrong” to get DCI

You can still get DCI even if your profile was perfect

Do not wait for it to develop sufficiently to confirm it is DCI

DCI does not respect age, gender, or experience

Seeking advice is never a waste of time

Think outside the box , DCI symptoms may not be classic classroom

Mild symptoms may be the beginning of more serious symptoms

Do not fear humiliation – DCI can happen to any active diver

Take responsibility



Take note of all these points.

Take action and seek advice.

Who and What is DDRC Healthcare?

Not for profit charitable organisation
Founded over 30 years ago
Emergency recompression
Fitness to dive advice
Medicals
Education
Research
Hyperbaric oxygen therapies



DDRC Healthcare would like to thank you for using this presentation and hope that you have found it informative. If so, please tell your diving friends about us, the work we do, and the services we provide.

All our diving research relies on funding from our charitable status, so we would appreciate you, or your club/school, making a donation for the use of this presentation, if you feel able.

Thank you so much!

DDRC Healthcare is a registered charity (No 279652)