

We HEAR breathing under water, scuba breathing.

We finally SEE the quote that comes on as if through water although it is white on black AND IN THREE SEPARATE PAGES:

**"Either you decide to stay
in the shallow end of the pool,

or you go out in the ocean."**

Christopher Reeve

We dissolve to the deck of a boat and see only empty wheelchairs from a number of angles as credits appear on screen.

As we HEAR:

MIKE PREEVY, PVA

We've got a real exciting program this afternoon, discussing the role of scuba as a modality for physical and psychological improvement after chronic spinal cord injury. I'm delighted to have our first speaker, Cody Unser.

We SEE more empty wheelchairs on the deck and we HEAR:

CODY UNSER

I just wanted to share my story and sort of the freedom of scuba diving and why I found it to be so liberating and really truly why it saved my life after becoming paralyzed.

We SEE the OCEAN full as the title card appears:

SEA OF CHANGE

AS we HEAR

CODY UNSER

I've never fought in a war, I don't know what that's like; but I do know what its like to question the rest of your life.

WE suddenly break the waters surface and SEE a boat with divers in the distance as we hear them prepping to go in. Quickly we are on the deck of the boat and we see that the divers are paralyzed and are being helped off the boat and into the water. We SEE one of the divers taping his legs together on the boat, and another, a quadriplegic, being suited with a tank and weights. It is a painstaking process but soon they are being helped over the edge and into the water. We don't yet follow them into the water.

GRAPHIC: Narrator: Montel Williams

NARRATOR 1:

This is a story about courage and conviction. It's about taking a risk (pause Nat Sound) and overcoming obstacles and fears. It's about trying something unusual, unique and empowering. And perhaps creating a new way for science to work (pause Nat Sound) and for us to see ourselves and others.

We dissolve to:

OVERLAPPING MONTAGE OF VOICES and PICTURES OF YOUNG VETERANS:

CHRIS SULLIVAN

I served as a 12 Bravo in the United States Army.

CHRIS KAAG

I was 17 years old, I went to boot camp back in 1994 down at Paris Island, South Carolina for Marine Corp Boot Camp

JOHN SUPON

US Marine Corp, infantry, also worked with scout sniper platoon. Worked as a camp guard security guard, Okinawa, Japan.

CAMERON BALENSKI

I was a fire control man 3rd class. I worked on the Tomahawk Weapon Control System, I was on the USS Anzio in Norfolk, Virginia.

CHRIS KAAG

When I went to boot camp I was about 215 lbs., couldn't run for anything but three months later I got out at 180 lbs. So it definitely changed my whole outlook on being active and being fit.

CRAIG CISCELLA

I was injured in 1992, I was in a off-duty motorcycle accident.

CHRIS SULLIVAN

Went to Iraq. May 21st of 05 I got hit while on a EOD mission. I got hit by a sniper in the neck leaving me paralyzed from the chest down.

CHRIS KAAG

I was diagnosed with adrenal myoneuropathy, It's a degenerative nerve disease, sort of like MS. For me, 21 years old, kind of a curve ball because I had my eyes set on, you know, making the military a career.

During the next bite we SEE pictures of Sullivan in hospital:

CHRIS SULLIVAN

I didn't feel anything, I couldn't move my arms, I couldn't move my legs, they pulled me out of the line of fire and um...I knew I was paralyzed and it just, my main focus was to stay calm because I could see the blood shooting from my neck, because it went through my carotid artery. I knew the more worked up I get, I go into shock and my heart rate would move up, and I didn't want to bleed out.

We TRANSITION into a BUS in the Cayman Islands. We SEE the vets on the bus and then at the welcome dinner outdoors.

NARRATOR 2: These warriors have seen and done what most of us cannot fathom. They have not only protected our country, but have paid a price to do that. And now, they are taking a leap of faith in hope of helping others once again.

MUSIC sequence as we SEE the vets on the bus.

AL KOVACH

We picked 10 veterans to come down to the Caymans to conduct a pilot study to see the neurological and the psychological effects of scuba on our, our veterans with spinal cord injuries.

SEE Al Kovach sync sound

ALL KOVACH

We've got 20,000 guys with spinal cord injuries, that are mostly confined to wheelchairs and this is one outlet that we haven't really pursued yet.

NARRATOR 3: Al Kovack is Senior Vice President of the Paralyzed Veterans of America. Like so many, he lives with a spinal cord injury.

AL KOVACK

It's one thing to really teach people with disabilities how to do this, but to focus on the veterans is, is a whole different story. Because these veterans we're used to a very active lifestyle prior to their injuries. and so you don't want to sit around watching TV all day, you want to get out and engage life again.

Quick MUSIC SEQUENCE with vets at the welcome dinner and taking pictures.

AL KOVACH

I was a Navy Seal and basically dove for a living and then when they told me that I had an opportunity to maybe get in the water again...I thought well, hell yea.

WE SEE a TRAINING SEQUENCE in the pool. We end the sequence seeing one of the doctors training.

CUT edit to Cody in her car DRIVING, with NAT music on the radio.

NARRATOR 4: This story has at its core, a 24 year old woman who was paralyzed at 12 (pause Nat Sound) but has never stopped living fully and having amazing, physically challenging exploits. Her mother, Shelly, has been a major supporter of these adventures. And because of Cody's drive to try new things and press the limits of her body... a mystery has emerged.

GRAPHIC: **THE MYSTERY**

We TRANSITION to the doctor in the laboratory at Johns Hopkins as we HEAR:

DR. ADAM KAPLIN

I've known cody since she was 13, coming out here to Johns Hopkins to be seen and one of her passions has always been to scuba dive, and she didn't let the idea that she was paraplegic since the age of 12, stop her.

NARRATOR 5: Dr. Adam Kaplan of Johns Hopkins University, has worked with Cody for over a decade. He is also an innovative and dedicated researcher who embraces bold ideas and unique thinking.

DR ADAM KAPLIN

She said, "Look, I'm telling you something is going on under the water, " and she said that she felt zingers, new sensations and the like.

CODY UNSER

I was actually started seeing some bladder sensation come back. Each trip I would gain more sensation back. And it would last for like a week or so and then it would go back to normal but above the surface I was like oh, I feel my bladder more. There's something to this.

We SEE and HEAR DR. BECKER coming in to see a patient.

LOCATOR: Kennedy Krieger Hospital, Baltimore

NARRATOR 6: Dr. Daniel Becker is working with Cody as well. His office is the International Center for spinal cord injuries. He works with patients who are paralyzed from conditions ranging from trauma to disease. His focus is on long term rehabilitation.

DANIEL BECKER

You have a set of stem cells sitting in your spinal cord and brain that is theoretically able to repair any tissue. The problem with these cells is they're very inefficient doing that. And in order to do what we want them to do, you have to activate the nerve system. And what we have seen, that when we expose the paralyzed body to activity, particularly from levels below the injury site, that these people start recovering function so this Center is built around that idea.

BECKER NAT SOUND Show me your muscles, pull.

We SEE Becker continue to examine the patient as we HEAR:

BECKER

We looked at spasticity, meaning stiffness of the muscles as you move them around. And we know when we use an activity-based restorative therapy program or, we like to call them ABRT programs, then over time you see a decrease in spasticity and that generally takes a couple of months to kick in and so one of the benefits is we get people off some of their spasticity medications. At the same time when we see, usually after a couple of months of ABRT, improvements in strength and improvements in sensation.

NAT SOUND

After a couple of months?

BECKER

After a couple of months, yes.

We see a TRANSITION back to the Cayman Islands. There is a brief MUSIC INTERLUDE with more training and finally we HEAR sync sound:

BILL MONSAM

They've never been in the water before, never on scuba. They did their book work and did their little quizzes and stuff and that's the first part of scuba diving that they actually got associated with was the book part. And then today was the first time they were actually introduced to the equipment and to the pool

NAT SOUND

That's cool as hell.

We SEE more of the training:

NARRATOR 7: Training to scuba dive is both exhilarating and frightening. While able-bodied people have difficulty accepting the challenges inherent in diving, for someone without the use of their legs or arms, going underwater is an act of extreme courage.

BILL MONSAM

Biggest challenge is probably breathing under water. It's not natural for us. We're not equipped to breathe underwater. So the biggest fear people have and the biggest thing to get over is the actual, can I really breathe under water? And you know that they get it as soon as you see those first couple breaths under water and you see the... you can see their eyes get really big through their mask and you know that they're thinking, wow, this is, really, you know, kind of incredible.

We TRANSITION now to the pre medical tests as we SEE various people going through the different tests performed by Dr. Becker and Dr. Kaplin and Shanna. Have some NAT SOUND of the tests being performed.

DANIEL BECKER

When we talked with Shelly and Cody in the past, they came back after these trips with these amazing stories of people that went under water and said, you guys have to come out and look at this because people are feeling better, they're energized, they're stronger, they have less spasticity, they have less pain, there's something to it, you need to look at that.

ADAM KAPLAN

Right now people just think about scuba as a sport. It's a recreational sport. No one is thinking about it as a therapeutic modality, and that was what was really radical that Cody was suggesting. There might be something therapeutic for people with spinal cord injury to scuba dive and get under the water. Now, I'd never been scuba diving in my life, so I didn't know what it is that she's speaking about, but I said, "You know, Cody, you know, I believe you. I believe that something's going on.

NARRATOR 8: So Dr. Kaplan began to search for information, for research that would support her claim.

ADAM CONTINUE PG 2 TOP

I looked in the literature and there was nothing published. Zero studies. There are a couple of studies out there that, that are printed in German that I can't read them, but I can tell you in the English language there are no systematic studies of this.

BECKER

So then we went to our institutional review board at Johns Hopkins and we proposed a study. We were able to get it approved, and so now we're here to look at it.

GRAPHIC:**THE STUDY**

NARRATOR 9: While the study is, by circumstance, not perfect. Dr. Kaplan and Dr. Becker are designing the effort as best they can.

BECKER

I think we have this unique opportunity to study these people in, in, in an environment we could never recreate in laboratory.

NARRATOR 10: And they will oversee the project personally.

NAT SOUND:

Becker: We're going to examine you from two angles in the beginning, so we're going to do a full neurological exam this morning...

We SEE Becker and his assistant visiting the rooms of the veterans.

BECKER

My role in this study is being the neurologist of this trial, as I have specialty training in spinal cord injury medicine. I'm very familiar with all the needs and problems of patients who are paralyzed. So we do a very detailed spinal cord injury exam, which is, according to the American Spinal Injury Association, which looks at five muscles in the arms, five muscles in the legs and tests every single level from the neck down to your toes in terms of your sensation and then we can score this. And so we're taking a snapshot of these people before they go to dive and then after we do the deep sea diving at the end of this trial, we're going to do the same exam and we hope we can compare these two things. And my part is the full neurological assessment in this case.

We SEE more of the testing, Adam talking to vets, Daniel testing vets.

NARRATOR 11: In addition to the physical testing, (pause Nat Sound) there is also psychological testing, mental health, PTSD.

And then we SEE Jeff working with a test and we HEAR:

JEFF Research assistant

This one we're doing neuropsychiatric testing right now. So this group of tests that test both cognitive, memory, concentration, things like that.

We SEE more testing, pin pricks, lung capacity, spasticity, etc. THIS IS A SEQUENCE SHOWING ALL THE TESTING we HEAR BITS AND PIECES and SEE lots of testing

DR. KAPLAN

I'm going to take you through the standard set of questions....

So tell me, When did, when did the injury occur?

It was 1997.

And in the last 6 months have you been particularly nervous or anxious compared to how you normally are?

BECKER TESTING AND NAT SOUND

KAPLAN

JEFF TESTING WITH THE PEG BOARD AND NAT SOUND

KAPLIN

But you didn't get treated with any medication or anything like that?

The SEQUENCE WRAPS UP and then we CUT TO:

KAPLAN training in the pool.

NARRATOR 12: But setting up the trial, the study, was not enough. Cody and her mother demanded more of the doctors, (Pause NAT SOUND) and with good reason.

KAPLAN

We didn't expect to be, um, uh, sort of expected to learn the scuba diving, but I'll tell you Cody, again, in her wisdom, and she's very wise, very smart, and, um, really sort of felt if we could get down there, if we started scuba diving we would have a better appreciation of what was going on. And it's true.

We SEE Becker and Kaplan training in the water.

BECKER

Initially I found it was an odd request, and, uh, because I didn't consider myself as a water person. (NAT SOUND) Shelley told me that, "If you want to be the neurologist on here, you have to learn how to dive. You need to go underwater. You need to experience what the veterans are experiencing underwater so you can actually know what they're talking about."

MONTAGE of Media covering the study in the Caymans.

KOVACK

This is something new. Very innovative.

REPORTER

Now did you come down here just to learn how to scuba dive cause you thought it'd be fun?

SULLIVAN

More for the research and I just wanted to be a part of it.

As we SEE this we HEAR:

CODY

After 9-11 happened, I started seeing a lot of wounded, you know, they're my age, it's crazy that they're my age and I've never fought in a war, I don't know what that's like, but I do know what it's like to question the rest of your life and to be able to sort of help or reach out to the vets was something that I thought I could do.

We SEE the divers **getting onto the bus** and have a quick music sequence as they go out to the boats on the bus. It is an ordeal to get all the equipment and people onto the buses.

CRAIG CISCELLA

I think we all want to live life and maybe dispel some myths about disabilities and many times people with disabilities just feel like you can't do what you used to do, whether it's skiing, playing basketball, scuba,

GRAPHIC:

FIRST DIVE

CISCELLA CONTINUED:

many different things and that's not the case. You can do it, it's just a little bit different.

Finally we are to the location with the boats...announcements are made, and the vets start to board the boats.

MUSIC SQUENCE of getting on to the boats as we HEAR:

CAPTAIN

OK guys we're going to get you on the dive boats. We're gonna have to lift the chairs actually onto the boats.

JOHN SUPON

This way to the booze cruise, right? (laugh)

CAPTAIN

You do need to lock your chairs with brakes please.

NAT SOUND

Can you see everybody?

CAPTAIN

There will be a little bit of bumpiness

NAT SOUND

Let's do one or two nice shots then the last shot like a goofy, wild crazy shot.

Back a little bit further. Smile.

SHELLY UNSER PG 4:

I am blown away that we got an IRB with two of the best doctors I know of, from the best institution and see what happens. Now they're here, now they're stuck, now we have them on a boat...yeah, it's going to be good.

The boats pull away from the shore.

Just before getting in we HEAR:

BOAT CAPTAIN

All right guys just very quickly so you'll have a quick run around the dive boat, where everything is. Fresh water aboard the boat is in the form of this cooler here. But we'll pretty much get everybody in and off the boat from the swim platform at the back of the boat. All right, have yourself a great morning. I'm looking forward to getting you all certified. Thanks for your attention guys.

NARRATOR 13: And finally, after all the training and initial testing, the trial is set to begin.

Now it is all NAT SOUND as guys go into the water.

NAT SOUND

Ok everybody, welcome to Stingray City. This is the original Stingray City. I'll try to make this briefly as short as possible so we can get everyone in the water and down there playing with the stingrays.

BECKER

I'm quite nervous. I have a very good pulse right now.

NAT SOUND

What we're gonna do is get everyone in the water and then we're gonna make a big circle.

After much movement into the water, we are finally under with them, we have a MUSIC SEQUENCE that is beautiful and slow and elegant. It is an amazing ballet of movement as we go under. We use Schueler Cam and Martin Cam from earlier show. It is interspersed with the thoughts of the guys (and Cody) as we see them underwater:

While we see the group we HEAR:

CODY

It's pretty cool to be down there and not have your chair to worry about defining you in that moment. The wheelchair's not there and everybody's the exact same for, you know what the 30 minutes we're down there, it's just fabulous, there's nothing else like it that can make everybody exactly the same. For me it's awesome. It's the best thing in the world.

Now we SEE Gretchen and Chris Kaag exploring underwater.

GRETCHEN KAAG

My husband is Chris and he's a disabled Marine, so we've been married almost 2 years. We do pretty much everything together. We do road biking, mountain biking, hiking, just working out in general.

CHRIS KAAG

From past experience I dated women who couldn't keep up with me on a bike, who couldn't do the things that I wanted to do like go kayaking and just didn't do those things and she does absolutely everything that I do and, and does it very well. She's the first woman I've ever been with that could kick my ass on a bike.

GRETCHEN KAAG

There's definitely a stigma. I mean even, not even just in the wheelchair but when we go on bike rides he's on a hand cycle and I'll be behind him a lot of the time and people just...I mean they're interested in what the hand cycle is, they might not be familiar so they'll just stare or like it's interesting because...and even in the chair people ask him if he needs help and he's much more able bodied than 90% of the people who ask him if he needs help.

CHRIS KAAG

When I see people, especially people who are out of shape, don't look like they have their stuff together, and they look at me funny and I kind of laugh at them because yea you see my chair but I guarantee I could get on a bike and smoke you, I guarantee that I'm more successful in my own right than you are. I want people to realize just because you see somebody's chair doesn't mean that you know they have limitations, because you have the same, you have disabilities as well, we just unfortunately can't see yours. You know you can see mine but that doesn't mean that I'm no less able than you are.

We SEE Chris Sullivan floating downward.

CHRIS SULLIVAN

It's a bit overwhelming the first time you go down because you're body's telling you, you don't supposed to be here, and you just got to overcome and rethink a lot of things

Look at all these people that are overcoming some of the odds, we don't supposed to do that. Normal people, like I said when, when we go down we don't supposed to be there. Well paralyzed people, 100% don't supposed to be there. So it's like they overcame so much, and, and, and there's just a sense of gratification.

We SEE John Supon swimming by himself under water.

JOHN SUPON

You know when you're in a wheelchair, you're sort of restricted on where you can and can't go. You can't go on the gravel, you can't go over here, you can't go over this you know step. But in the water it's like well, I can go exactly where you're going.

We SEE Chris Sullivan

SULLIVAN

I'm weightless and I can move around versus when I'm on land I can't. I can still move around yes, but I mean it's effortless motion in the ocean. So it's awesome.

After this sequence we finally SEE them come up.

NARRATOR 14: And while the underwater world is the great equalizer, once on the surface, the realities of gravity become all too real.

MUSIC HITS HARD and there is the scramble of getting back up onto the boat and great struggles to get the guys back up on the deck of the boat.

NARRATOR 15: But despite the struggles getting on and off the boat, the energy and enthusiasm are difficult to contain.

NAT SOUND

You're officially a diver. (APPLAUSE)

We HEAR MONTAGE OF VOICES, OVERLAPPING ON OCCASION:

DIVER

You know just one of those experiences you never think you'd get in a lifetime and there it was.

DIVER

Like getting down there and like just, just floating around

GRETCHEN

That was really cool.

DIVER

Awesome.

AL KOVACH

Was it 10 of us down there all at the same time? It was awesome. It's like being on a whole other planet down there.

DIVER

I would say borderline spiritual. When you get down there it's pretty magic when the whole world gets so peaceful because you're in your own little world down there.

SUPON

You only live once, sometimes twice, you get lucky, you get to do this kind of stuff again.

DIVER

Awesome, awesome.

AL KOVACH

And we're just kind of hovering along you know. And yeah, it was very, very cool.

THREE DIVERS

You're on an equal playing field with everybody else.

SULLIVAN

You're like weightless and I mean you can move around a lot easier than being on, on land and having that disability. It's just a lot easier under the water.

NAT SOUND: Would you do it again?

SULLIVAN

Oh definitely. I'm doing it again tomorrow.

We SEE everyone laughing on the boat.

NARRATOR 16: The doctors are also taken with the ocean. They're now convinced there may be something to this scuba. It is an energy and hope that wouldn't have been realized in the laboratory.

DANIEL BECKER

Every time I'd come out of the water, I felt this euphoria.

NAT SOUND BECKER

I had a great time.

BECKER

I assumed that I'm still happy because I'm still alive, until I had realized towards the end of the, the trip that the whole boat was having this buzz, this positive energy, something I can't put in a clinical study. I can't measure. I don't even know what I would measure, but it was there.

NAT SOUND

Say something special, something inspiring.

I'm going to Disneyland. (LAUGHTER)

BECKER

This was my very first dive, yes.

KAPLAN

He was a little anxious out there.

BECKER

I was quite anxious. But I was the first person in the water.

NAT SOUND: Wait a minute, we gotta hear him. He's trying to talk. So you were anxious?

BECKER

I was, yea, going in, I was a bit nervous. I've never done this before and it's a... in the Pacific Ocean. Who's going to help you when you, if you need help?

NAT SOUND: Not him.

BECKER

Yea, well he was dive buddy, it was very interesting because we had...

KAPLAN

He disappeared on me. As soon as he, like he went down, he's like I'm out of here.

WE SEE the boat full of people, laughing, and enjoying as slowly FADE TO BLACK

As we FADE UP it is **black and white and we're in the past**. And we SEE OLD PIX OF CODY VERY YOUNG IN THERAPY AND AT INDY 500 WITH HER FATHER.

NARRATOR 17: Cody Unser, daughter of two -time Indy 500 winner, Al Unser Jr., was paralyzed through a disease called Transverse Myelitis (MY-a-LITE-us) when she was 12. The challenge was more than relearning how to function without the lower half of her body. It was the necessity to reinvent her life and her future. Her mother Shelly and her brother, Al the third, found ways to help.

We HEAR:

AL UNSER III

She'd been paralyzed, we stopped the progression. she'd gone to rehab, the options for her seemed very limited. And I didn't see it that way. I, you know, I saw that there were some obstacles to get around but you could still do whatever. I threw her in the pool cause she didn't think she could swim. And actually before I threw her in, I just kind of pretzled my legs and just swam with my arms. Do this...and then yea, I did pick her up and throw her in the water (laugh). I guess being in the water was very freeing for her. She could swim almost as fast as I could, it was a natural progression right to scuba, something that she wanted to do years ago when she wasn't paralyzed and now let's try to do this.

We SEE the old pictures of Al III and Cody on back of boat, Al holding her and jumping in from the CODY documentary.

SHELLY UNSER PG 1 BOTTOM

I literally remember thinking when they jumped into the ocean together that it was like an offering, because I thought I must be out of my mind, this is my child. Best thing we ever did. Best thing that ever happened for Cody since her paralysis.

We transition to seeing her on the deck of the training pool in the Cayman Islands today.

CODY

Becoming paralyzed has sort of, I mean, it's given me a direction. It's given me a sense of control but something that I can work towards and to make a difference and I think that kind of is what drives me is the, knowing that I had the opportunity to change someone's life and the same way that my family has changed my life with, you know, telling me I can do the things I want to do (SYNC SOUND) I may be paralyzed but, you know, that doesn't mean squat to me. You know, I can still do the things I want to do and still make the difference that I want to do.

Transition to GRAPHIC:

SECOND DIVE DAY

NARRATOR 18: While the sea brings instant mobility and freedom, getting to that point in a land of gravity is a struggle. (Pause NAT SOUND) But the memories of the first day urge the veterans to the boat.

NAT SOUND

That's a good one, get a shot while I'm helpless.

NAT SOUND

Where's a good set of spurs when you need em'.

Now we SEE people being carried across the sand to the boat. Some struggling to walk a bit, some in chairs, some being lifted but all eventually ending up on the boat and heading out.

He HEAR THE CAPTAIN giving information about the dive and people suiting up.

DIVE INSTRUCTOR:

So this is open water dive number two. We're gonna line you up as a group and then we're gonna go through a couple skills. We want you as negatively buoyant as we can cause we want you down on the sand. I want you to dump all the air out of your BC.

The next one will be full mask flood. One of the skills we're gonna do down there is alternate air source, you need your dive buddy to do it. One person is gonna be the donor. Secure his alternate air source, take your regular regulator out of your mouth and put in your alternate regulator. And then we're gonna do the seasa up. I go two, deep breath, let it out, three, drop the hammer. Up we go. And you're gonna have to

swim...hard. Normal decent rate. If you're shooting to the surface, we're gonna lock you down. We're gonna stop you.

NAT SOUND

Put on your mask Chris.

I think I saw this in the Sopranos.

I can't wait to get on that wreck, that is gonna be awesome.

All the way down till you hit the water. Ready? One Two Three

We got a high diver here. Make sure the chair doesn't go with you? Make sure Bo didn't duck tape my legs to the chair. (laugh)

We ENTER THE WATER off the boat to NAT SOUND again. As we see them underwater we again HEAR their thoughts:

AL KOVACH

When you can't feel your legs you really don't know where they are while you're diving, they're just behind you somewhere, but they still have an effect on your buoyancy. If my legs are in two different directions it causes a lot of problems with my trying to remain flat in the water and by keeping them taped together and having weights on the end of the ankles, it keeps me real neat clean position and it doesn't mess with my buoyancy so much.

MUSIC SEQUENCE that is another beautiful ballet underwater.

MICHAEL PAUL

You've got some high level injury, spinal cord injury veterans here that you know probably didn't think that it was even going to be possible for them to even do this. As we know today, most everyone has completed the training and they're ready to go on their own. They've been empowered by this opportunity.

CAMERON

It was weird how natural breathing through the tank was. You know after awhile I wasn't even thinking about it. Once you get a breath it kind of forces it in you know, because normally I can't take a deep breath. But you know when you've got that, you're going to get it going and it does help you get a big breath in once it expands. So then it

felt good because normally, going around every day, you don't get big breaths like that. You know you really got to push them in, you know, that did help me.

SULLIVAN

These people, don't supposed to be here. Like we don't supposed to be able to be go diving and just the freedom and the happiness that you see on these people faces, is just priceless.

As this sequence ends...we slowly fade to the deck of the boat once again and the empty chairs. Then the sunset on the beach with the boat in the distance. Finally we FADE TO BLACK.

The MUSIC hits fast and hard and throughout the next sequence:

We SEE an exterior shot of the JHH campus.

LOCATOR Johns Hopkins Hospital, Baltimore

We SEE Cody arriving and Becker and Kaplan greeting her and all getting seated. We will keep coming back to this scene as we HEAR AND SEE inserts of Kaplan and Becker talking about what they've found in the study.

NARRATOR 19: It is just over six weeks later,

CODY
Daniel

NARRATOR 20: The pre and post tests have been examined.

BECKER
We have something we want to show you

CODY
I know, I'm excited. I want to see this.

BECKER
We'll have to pull it out. It's tiny little pieces of information and we have to put it all together for you.

***NARRATOR 21:
And the initial results are completed.***

GRAPHIC:

THE RESULTS

BECKER

It has to stay in this little room.

CODY

Is it all like

BECKER

Confidential until we

CODY

I've got a big mouth

KAPLAN

So, we're so glad you came in. We've been real excited to show this to you. I'll start.

BECKER

Okay.

KAPLAN

And you bring us home.

CODY

So you're going to tell me the neuro psych results, and then you're going to tell me...

KAPLAN

The neurologic and physiological.

BECKER

Correct.

We SHIFT BACK AND FORTH between the separate interview and the group debrief:

BECKER

So as I arrived at home, I was about to embark on another city trip. So I took my data and I digitized it. And I took it with me on my laptop.

We are back in the debrief area with CODY AND THE DOCTORS:

KAPLAN

But you know this started off with you having this crazy idea and saying anecdotally that you thought something was happening under the water. So what did you think was

happening under the water? We're going to show you the data, but what was it that you thought was happening?

CODY

Huge effects.

KAPLAN

What kind of effect?

CODY

I mean obviously a psychological effect.

KAPLAN

Okay, that's what I'll talk about in a second.

CODY

That elevated the mood, um, uh.

KAPLAN

Interestingly, that wasn't even the strongest psychological effect, but it was a psychological effect. There's something even more amazing, but go ahead.

CODY

Um... just overall sensation, specifically I had more bladder sensation but, um, just an overall general improvement in sensation.

KAPLAN

When we left the island, Dan said, "I don't know. I don't know if we'll see anything."

BECKER

I started going through the handwritten data and plotting it in an Excel spreadsheet, and I remember starting with the spasticity data, and as I go through each one of the subjects, the first one showed an improvement. I thought, "Huh, that's interesting." And the second one showed an improvement. "Huh, that's very interesting." And the third one didn't, and I thought, "Okay, that kind of fits my expectation." And as I went through the whole list, I realized that eight out of the ten subjects had improved on that score, and that's something that you don't see very often. And I thought, well, what's the difference between the two that didn't improve and the eight who did? The two outliers were the two people who had only limited exposure to diving, and I thought, "Huh! That's, that's, that's very interesting. Let's look at the next thing."

We are BACK WITH THE THREE in Debrief

BECKER

And so, when we did the, the last set of data which was about 25 hours after their last dive, I asked everybody. So I went in there and I asked them, “Did you notice any kind of change?”

CODY

Like specifically.

BECKER

Right, did you notice anything when you came out? Did you notice anything now?” And mostly the opinion was, except for a couple of folks, they said, “Well, it was great but I didn’t feel anything in particular.”

BECKER

So the next thing is the ASIA score, and the ASIA score we pretty much put in the study to be complete from a spinal injury standpoint. We did not expect to see changes on the ASIA score. (GRAPHIC: American Spinal Injury Association) It measures strength in the arms and strength in the legs, and it gives a score to your sensation on a light touch and pin prick level, all the way from your neck to your toes. And changes on the ASIA score occur, again, in a matter of months with an activity-based therapy program like we have it here at Kennedy Krieger. So I started plotting those results and looked at the, uh, sensation scores. They improved. I looked at the light touch scores, they improved, and I looked at the pin prick scores, they improved. I looked at the motor scores. They improved. And these are things we’re not supposed to see and, again, there were two outliers, and guess who these two outliers were? The same who were outliers on the, on the first test, the two folks who did not dive or only had limited exposure to diving.

BECKER

So I looked at this thing and I thought, holy, this isn’t possible.

CODY

Oh, my god!

KAPLAN

And then my pager starts going off, and it’s Daniel. And I call him back. I’m like, “Daniel, what’s so important? You’re paging me, you know, a couple days after we left.” He said, “Adam, Adam, there is something going on down under there.” I’m like, “Daniel, what

are you talking about?" He's like, "I'm looking at the data. I've got to send you the data. You're not going to believe it."

BECKER

And almost all of them were better, so by about 28%, 18%, 12%, 13% so something in the 20% range. So all of them improved significantly.

KAPLAN

Oh, my god, this is a game changer. This changes the way we're thinking about this. There actually is a story to tell.

BECKER

But generally it takes about three months, three to six months for this to occur. Okay. So I got this and I was so, I was almost falling out of my chair but there was nobody there I could talk to.

KAPLAN

He started texting me wildly.

BECKER

I mean this is Ashworth which is one of the least sensitive exams. This is a test that most clinical trials have failed on, and this is such a robust trend.

CODY

Oh, this is so exciting.

KAPLAN

Most of the studies that get done, patients will say, "Yes, I felt myself become less, have lower tone and less spasticity, but the doctors can't appreciate it." So to have that big a change that, you know, a trained neurologist can detect says it's a robust change and one bigger than you, than you see in most studies.

BECKER

So now all of a sudden I have improvements and now I started getting emails from some of the participants who were saying, "Well, we may not have been quite honest with you yesterday when you asked us about these changes, and, um, but we have to tell you that things are really different." So I remember one of them that called me and said, you know, "I walked on the airplane. I never walked on the airplane before. I generally need a chair to get me there." And then that actually made sense because now we know the improvements I see in the spasticity and somebody is really stiff, you

can't walk. So if you improve the spasticity, it gets better and having more strength helps you with that, too, so all these pieces of the puzzle started fitting. This was the really exciting part of this, almost unbelievable.

We have a QUICK TRANSITION sequence and then HEAR:

NARRATOR 22: Not only were the physical changes amazing, there were incredible psychological changes as well.

KAPLAN

One thing that you wouldn't expect to change though would be PTSD symptoms. So in this population, you know, post-traumatic stress symptoms, when people are, have post-traumatic stress disorder, they have hyper-arousal. It's an anxiety disorder that's induced by life experiences that lead to a certain pattern of anxiety.

CODY

So you're saying like in any environment that you put them in.

Kaplan: Yea, and so that's the thing about PTSD is, you know, you take people anywhere, uh, you take them to an island, people generally still have PTSD, um, and what was really dramatic is that there were five individuals who had some PTSD symptoms but of the people who scored positive on the impact of event scale, there was an

GRAPHIC:

**PTSD
80-100% REDUCTION**

80% reduction. Some people had 100% resolution of their PTSD symptoms. And so that was really amazing.

NARRATOR 23: So how could this be possible? How can the sea create this unheard of change.

KAPLAN

So the reason why this makes a lot of sense to me is because, and again, because you had us go scuba diving I now understand what was going on. First thing is, um, and a lot of people I think don't appreciate necessarily is it's sort of scary, um, and you know...

[laughing]

KAPLAN

when you get down 60 feet and you have to practice taking off your mask and flooding and you can't, you know, rise to the surface or someone will grab your leg and pull you back down because you'll get the bends, so it is something that invokes, um, you know, anxiety. And yet in doing this, everybody got a sense of mastery, doing something that made them anxious so there's that. So taking something that scares you but getting mastery of it will help PTSD, presumably, this is the hypothesis. The other thing is that while you're doing this, what was so interesting to me is it's almost like Zen and the art of scuba diving 'cause so much depends on breathing. That was what was interesting to me. I thought this would be really aerobic...

CODY

I see.

KAPLAN CONTINUED

...and we'd be pumping, it's not aerobic. It's really more sort of focusing on regular breathing so you don't use up all your oxygen, so it's sort of training people how to breathe right and how you...

CODY

Well, and in those intense scary moments when you're like, oh, my god, I'm going to die, you, um, you, the first thing they teach you in scuba diving is just concentrate on your breathing.

KAPLAN

Right. And I don't think...

CODY

In and out, so...

KAPLAN

Right, exactly, and I don't think people fully understand if they haven't been scuba diving how once you achieve neutral buoyancy, whether you go up over the rock or not, depends on how deep your breathing is, so it's really all about controlling your breathing to control your buoyancy, so it really is taking something that makes people anxious and giving them specific training in how to breathe. So breathing exercises are classic for helping people with anxiety, so this is sort of breathing exercises and giving people a sense of mastery in something that makes them anxious and is potentially threatening. That's why I think there's such a dramatic decrease in the symptoms, on average 80% of PTSD-like symptoms improved. So this is a dramatic treatment. I mean nothing I've seen has that kind of an effect.

GRAPHIC: THE NEW CHALLENGE

KAPLAN

Many people in the field believe that once you have the injury, even if it's partial, that those neurons are gone, that you can't improve function and, you know, Daniel and the, uh, activity based rehab therapy is showing that you can regenerate additional, you know, neurons perhaps through stem cells and the like, but many people in the field think that this is impossible. This says the wires are there. It's still possible to increase the strength through these wires.

BECKER

That's why we think we're going to have trouble explaining that to the scientific community because...

KAPLAN

They won't believe it.

We CUT TO images at the PVA conference in Orlando Florida. We SEE the various booths and the signage.

NARRATOR 24: Two more months have passed and the doctors and Cody are now ready to release this information to the world.

KAPLAN

For 80 sessions over 7 months. We did this over 4 days.

NARRATOR 25: And there is no more appropriate place to do it.

We SEE that this is a conferences and we SEE some of the booths of materials for those who are paralyzed.

LOCATOR GRAPHIC: Paralyzed Veterans of America Conference
Orlando, Florida

WE NOW SEE SYNC SOUND OF THE OPEN TO THE DOCUMENTARY:

MIKE PREEVY, PVA

We've got a real exciting program this afternoon, discussing the role of scuba as a modality for physical and psychological improvement after chronic spinal cord injury.

CODY

Before I turn it over to Adam and Daniel, I just wanted to share my story and sort of the freedom of scuba diving...

WE slowly dissolve the audio into the AUDIO BELOW OVERLAPPING AS WE :

As Cody, Becker and Kaplan present in a **PRESENTATIONAL MONTAGE overlapping audio** and information with shots of audience, power point, and presenter:

KAPLAN

These are not people who had acute spinal cord injury. These are people who had on average a decade and a half of chronic spinal cord injury ...

So it was ten open water dives, average depth was 51 feet and the average time down was 33 feet. We were really in four days doing a lot of diving,

... that was interesting is PTSD. PTSD is not the kind of thing that just evaporates ...you can't get rid of this just by taking someone to an island. ...in some people 100% relief ... could scuba be a novel therapy for PTSD? There's no literature on that. No one's even studied that.... regains some sensory function, spasticity improvement in all of them and half of them having motor function improvement. That just doesn't happen... what we think is going on is this. Scuba is leading to this heavy duty nitrogen load, ... you absorb all of that nitrogen. ...and that serotonin is then what stimulates this pharmacological facilitation and ..., it gets this central pattern generator ... that will improve not only motor function but sensory function...it's hard to get a 300% increase in serotonin any other way, except maybe scuba diving.... sort of a new way into the spinal cord... We think that Cody led us to a potential very interesting mechanism to rehabilitate the spinal cord.

[applause]

MUSIC starts as we dissolve to the underwater world and SEE the vets diving in a group.

We slowly dissolve their audio into the FULL SOUND of the UNDERWATER BREATHING.

MICHELLE MONSAN (reading)

Let it be known this flag was flown over Afghanistan onboard a B-1 in support of operation Enduring Freedom on the 10th of June, 2010, in honor of the Cody Under First Step Foundation.

SHELLEY UNSER

Never been out of the box 'til now guys in honor of all of you who have been certified we are taking this aboard the USS Kittiwake and then we're going to take a photo and send it back to the guys that flew it for us. And this is in honor of all of you who stuck it out and are now certified.

[applause]

As we SEE: the ship under water and the flag and the vets posing underwater for the picture.

NARRATOR 26: It has been a difficult and life changing project for Cody, her mother and certainly the veterans. It was a leap of faith and courage that brought them together. And it is science that has now chronicled at least one portion of the success.

ADAM KAPLAN

For years these people had some of them spinal cord injuries, and within a matter of days regaining function, suggesting that the wires are still intact and somehow, either through changing the function of the existing nerves or reorganization of, you know, the connections that exist, synapse, maybe growing new synapses, who knows what it is? But the concept is that somehow you can actually restore sensory and motor function as well as have dramatic psychological benefits to patients when they're scuba diving. It is unprecedented. If these results repeat themselves, this is an unprecedented finding that something is happening. Who knows exactly what it is? But the fact that there is an "is" there, means that there's a lot more research to be done.

We SEE the vets scuba diving on the ship wreck under water and one of them has brought a wheelchair down. We SEE them in the wheel chair and ever so slowly, drift out of the chair, leaving it empty on the deck of the ship wreck.

Music Swells.

FTB

ROLL CREDITS