

WCHM

WOUND CARE AND HYPERBARIC MEDICINE

VOLUME 9, ISSUE 4 — WINTER 2018

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WOUND CARE AND HYPERBARIC MEDICINE

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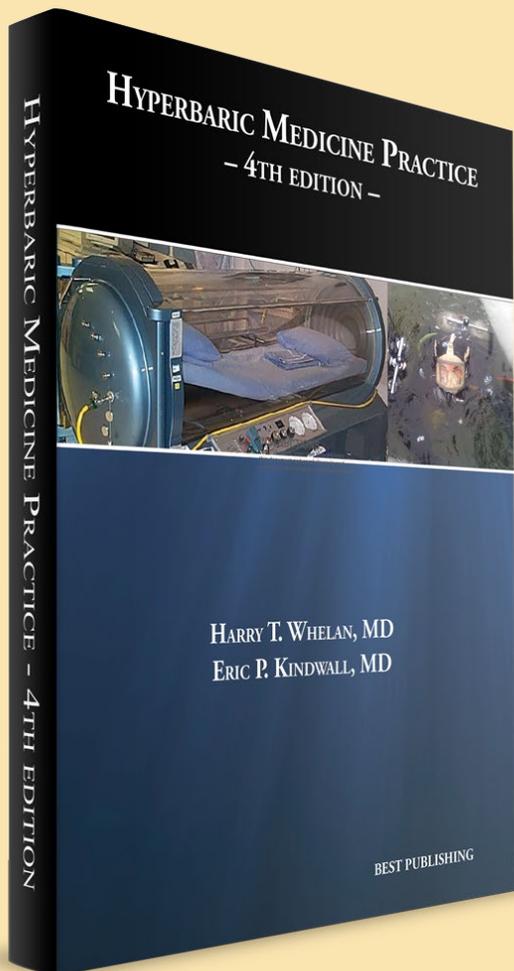
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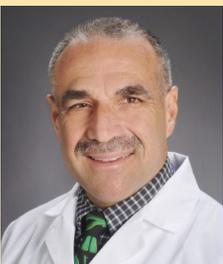
New contributors have written or revised most chapters, but many authors have returned to update their chapters. New chapters cover areas recently approved for hyperbaric oxygen treatment, such as idiopathic sudden sensorineural hearing loss and central retinal vein occlusion. There are also chapters about

submarine rescue and problems that pertain to technical and rebreather diving.

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Dr. Whelan, a Milwaukee native, is professor of neurology, pediatrics and hyperbaric medicine at the Medical College of Wisconsin. He is also a captain and a diving medical officer (DMO) in the U.S. Navy and a consultant to the Navy Experimental Diving Unit (NEDU). He recently served as commanding officer of Marine Air Control Group 48 Medical and undersea medical officer for Deep Submergence Unit, which is the Navy's submarine rescue team and its deep-sea research component.



NOTE FROM THE EDITOR

As *WCHM* closes out 2018 and approaches its 10-year anniversary in 2019, this issue focuses on several human-interest stories from some special guest authors in addition to the return of several of our prolific authors. To kick off this issue, a brief explanation of what is in store for the magazine and its readers in 2019 and beyond is provided.

Next up, the Baromedical Nurses Association (BNA) provides updates from its website along with announcing the 2nd annual Hyperbaric Nurse's Day on April 2, 2019.

A synopsis of the highly anticipated publication of the 2nd edition of *Hyperbaric Facility Safety: A Practical Guide* is included along with an announcement from UHMS regarding a cost-effectiveness study using HBO₂ for treating radiation-induced cystitis and proctitis.

Deane Nesbitt discusses how Milpark Hyperbaric Medicine Centre (see *WCHM* Volume 9 Issue 2: Clinic in Focus spotlight 2018) helped his cancer healing journey and how he gave back to the clinic.

Darren Mazza returns again for a personal story on how a dry run changed his perspective on life and those of his hyperbaric chamber patients.

To close out this issue, guest author and conservationist Dove Joans shares her unique thoughts on living life through breath and water.

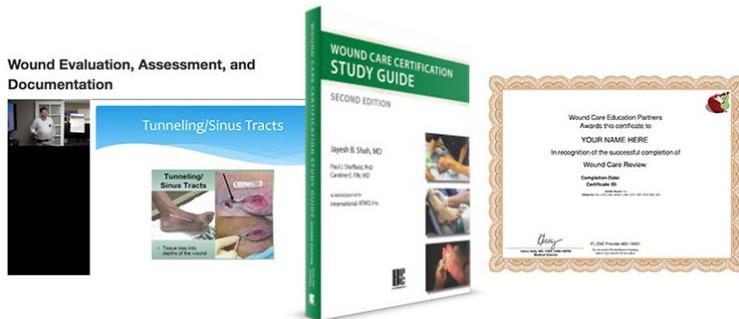
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Lorraine Fico-White
Managing Editor, *WCHM* Magazine

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WCHM Magazine Celebrates Its 10-year Anniversary in 2019

Next year, the staff at *WCHM* has big plans for recognizing the advancements and accomplishments over the past 10 years in wound care and hyperbaric medicine. The magazine will launch its own website where past articles can be readily found/accessed by all practitioners via keywords and google searches. The articles can also be used for continuing education and reference sources.

Each issue will also spotlight an archived article that had an impact in wound care, hyperbaric medicine, facility safety, quality control, billing and coding, legal issues, and/or continuing medical education (CME). Generous sponsors and prolific and knowledgeable contributing authors will be recognized.

WCHM is the *only* free online magazine covering all topics under pressure: wound care, hyperbaric medicine, and

diving medicine, with a circulation of over 13,000 wound care and hyperbaric medicine practitioners and interested parties.

The magazine's past and present role continues to be a fair, objective, nonpartisan, international publication dedicated to reporting and commenting on the knowledge and advances in science and technology encompassing wound care and hyperbaric oxygen therapy. It reports on currently accepted and emerging clinical applications as well as the associated economic, social, and political issues and events that influence the administration, growth, and development of the field.

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ASM 2018 HIGHLIGHTS

SEE PHOTOS FROM THIS YEAR'S MEETING AT <https://www.uhms.org/asm-new/2018-asm-photo-gallery.html> & LOOK FOR MORE REPORTING IN THE 3RD-QUARTER ISSUE OF UHMS' NEWSLETTER PRESSURE.

2018: An Exciting Year for the BNA!

Letters from the President: Annette Gwilliam

Information compiled by Laura Josefsen, RN, ACHRN from the BNA Website: hyperbaricnurses.org

The highlights of 2018 for the BNA include the following:

The first annual Hyperbaric Nurses' Day was implemented! The board is busy preparing for the 2nd annual Hyperbaric Nurses' Day which will be the first Tuesday in April. Check out the website for the activities and updates on this very special day!⁽²⁾

"LVN/LPNs are now eligible to join the BNA. They may serve on committees under the direction of the Committee Chair with approval from the Board of Directors. LVN/LNs may not make motions, vote, or serve on the Board of Directors and have limited member benefits. The LVN/LPN will have access to the membership page of the BNA website and be allowed to take the educational webinars without charge. Membership cost will be \$50 annually. If you know a LVN/LPN working in HBO, please be sure to let them know the good news."⁽¹⁾ We are excited to welcome these very dedicated nurses!



"There is an increase in the number of continuing educational opportunities through the webinars. All of our webinars and CEU offerings provide nursing CEUs that can be used for both your nursing license and CHRN renewal. We are also getting approval from the NBDHMT so if you know of CHTs looking for hours, we can provide them! As always, participation is FREE for our members, \$15 for non-BNA members."⁽¹⁾

"The BNA is excited to offer the BNA Forum to provide an avenue to submit questions and collaborate with fellow HBO

nurses. To create a robust forum, we are asking members to refrain from sending questions directly to the BNA and instead post them on the Forum. The BNA has a dedicated board member who will monitor posts. You must have a password to post or view the Forum. Please email the BNA to request a password."⁽¹⁾ The members forum is going strong with lots of excellent question. Thanks to Janet Bello for monitoring the site.⁽²⁾

"Also, check out the Baromedical Nurses Facebook page (thanks to Gus Gustavson for editing). These sites are helping us fulfill one of our missions in the BNA, 'opportunities for networking and information exchange.' Check out the chamber spotlight tab on the website and consider sending us information about your facility. Continue to keep in touch with us."⁽²⁾

The website is growing and improving. Be sure to check out the new tab with the Guidelines of Care. We have also added another chamber spotlight. Email us the answers to the questions posted there and we will recognize your facility.⁽¹⁾

The BNA membership meeting at the Annual Scientific Meeting was made available by a webinar for those not able to attend in person. If you missed it, we have the PowerPoint posted on the website so you can catch up on past accomplishment, future plans, who won elections, and who received awards. Thanks to those nurses who volunteered to assist on committees. We are still looking for more people willing to give a few hours of time to help on committees such as publication, research, education and membership. Remember that assisting with the BNA will help you receive your ACHRN.⁽¹⁾

"Research is important to hyperbarics as we continue to further our practice. Keep an eye out for a survey that will be coming your way soon from the BNA research committee."⁽²⁾

Check out the Certification tab on the website for information and updates from the Baromedical Nurses Association Certification Board (BNACB).

The Board wishes you a very happy holiday season!

References

1. Annette Gwilliam, August newsletter, Hyperbaricnurses.org
2. Annette Gwilliam November newsletter, Hyperbaricnurses.org ■

About the Author



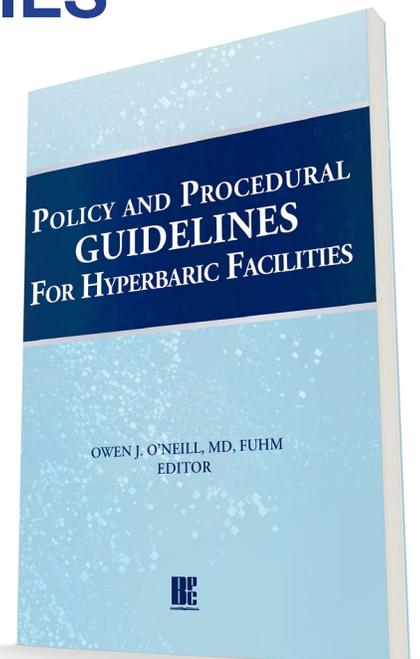
LAURA JOSEFSEN, RN, ACHRN, has been involved in hyperbaric nursing since 1982. A founding member of the Baromedical Nurses Association (BNA) in 1985, she served as BNA president from 1996 to 1998 and as a board member in several positions throughout the years. She served on the Undersea and Hyperbaric Medical Society (UHMS) Associates Council for six years, with two of those years as Nurse Representative on the UHMS Board of Directors. She is a member of the UHMS Accreditation Team as a nurse surveyor, served for many years as an executive board member of the National Board of Diving and Hyperbaric Medical Technology and is a previous chairman of the BNA Certification Board. She is a member of the UHMS Associates, former member of Divers Alert Network, and former member of the Hyperbaric Technologists and Nurses Association (HTNA) of Australia. She has numerous publications and is an internationally recognized speaker in the field of hyperbaric medicine. Her passions are quality improvement and education to promote hyperbaric nursing, safety, and optimal standards of care and practice for patients and the community.

POLICY AND PROCEDURAL GUIDELINES FOR HYPERBARIC FACILITIES

Provides needed resource and reference guidelines for new and established hyperbaric facilities, serving as a reference for the development of new hyperbaric policies as well as customizing and enhancing current policies and procedures already in place.

Policy and Procedural Guidelines for Hyperbaric Facilities addresses issues of safety and practice for both the multiplace and monoplace environments. Utilizing regulatory guidelines and standards of practice as its foundation, this book covers governance, administration, emergency procedures, patient care, hyperbaric chamber maintenance, treatment protocols and quality improvement, among other topics. The appendices include sample forms for both Class A multiplace and Class B monoplace chambers.

The guidelines provided in this document will benefit the diverse group of physicians, nurses, technicians, and allied health-care personnel in the hyperbaric field as they customize their unit-specific policies and procedures.



Endorsement from Baromedical Nurses Association (BNA)

The Baromedical Nurses Association endorses **Policy and Procedural Guidelines for Hyperbaric Facilities** as guidelines to enable hyperbaric facilities to develop and/or endorse their unit-specific policies.

The Baromedical Nurses Association (established in 1985) provides a forum for hyperbaric nursing that encompasses quality, safety, teamwork, mentoring, research, education, and nursing guidelines of standards of care for the patient receiving hyperbaric oxygen therapy.

In commemoration of the 75th anniversary of the attack on Pearl Harbor, Best Publishing Company announces the publication of

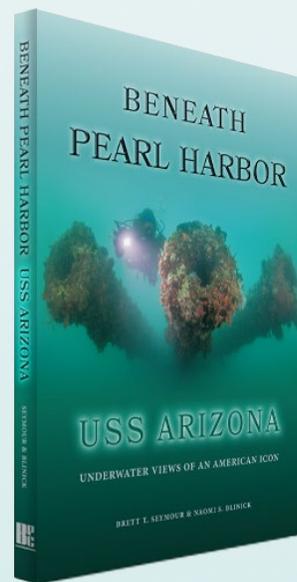
BENEATH PEARL HARBOR: USS ARIZONA UNDERWATER VIEWS OF AN AMERICAN ICON

By Brett Seymour and Naomi Blinick

Experience *USS Arizona* as never before in this collection of images and essays that bring the fallen World War II battleship to life. Explore the submerged ship, its artifacts and history underwater with individuals who have a tangible and passionate connection to the ship—National Park Service divers.

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—LAUREN BRUNER, *USS Arizona*



Brett Seymour is the Deputy Chief of the U.S. National Park Service's Submerged Resources Center (SRC).

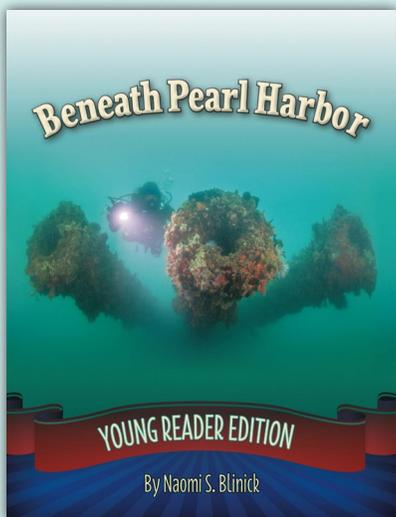


Naomi Blinick is a freelance photographer and marine biologist.

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Have you ever wondered what it looks like under the waters of Pearl Harbor? The *USS Arizona* is the most well-known battleship sunk during the Japanese attack on Pearl Harbor in Hawaii on December 7, 1941. In this book, you can explore the *USS Arizona* alongside National Park Service scuba divers, who use diving as a tool to study and preserve the ship. Learn about one of the most historic shipwrecks of all time through narrative and stunning photographs.



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—NIKKI STRATTON, Granddaughter of *USS Arizona* survivor Donald Stratton

“It was my dream to visit the *USS Arizona* Memorial, and getting to experience it in person is something I will never forget. This book allows my younger generation to learn about Pearl Harbor without being there. The stories of these brave men and women live on through us by what we learn and share about them.”

—LONDON KNESTRICK, young reader and Pearl Harbor enthusiast

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UHMS Announces a Cost-Effectiveness Study of HBO₂ for Radiation-Induced Cystitis and Proctitis

Compiled by Renée Duncan, UHMS Communications Coordinator

In July 2018, a working group with members from two committees of the Undersea and Hyperbaric Medical Society (UHMS) initiated a cooperative study with Dobson DaVanzo & Associates, LLC, to carry out an investigation of the cost effectiveness of HBO₂ when applied as a treatment for radiation-induced cystitis and proctitis.

“Dobson and DaVanzo (D&D) is a health economics and policy consulting firm based in Vienna, Virginia, with an impressive track record in providing consulting services to groups conducting medical research, especially when the intent is to access and analyze large databases,” noted Dr. John Feldmeier, co-chair of the UHMS Research Committee. “These consultants have already purchased access to CMS records from 2012 to 2017, which we will employ in accomplishing the study,” he added. The study is being funded through an unrestricted grant from Healogics, Inc.

Who & What

The UHMS working group is composed of Drs. John Feldmeier and John Kirby, co-chairs of the UHMS Research Committee, and Drs. Helen Gelly, Marc Robins and Caroline Fife of the Quality, Utilization, Authorization and Reimbursement Committee.

“It was our QUARC colleagues who brought forward the concept of employing CMS data to complete a cost-effectiveness review of hyperbaric oxygen treatments for late tissue damage from radiation,” said Feldmeier.

The initial thrust was to investigate mandibular radiation necrosis treatment and prevention. Ultimately, however, the working group concurred that radiation injuries to the bladder and rectum would be the best objects of this study design.

Access to Data

The rationale for this choice includes the fact that many patients with mandibular osteoradionecrosis have an oral

surgeon as the managing clinician. “We were concerned that many of the charges would not be accessible in the CMS database because if care was provided by a dental specialist, some costs may not be submitted to Medicare,” noted Feldmeier. Charges could be submitted to dental insurance providers or be cash billings.

“Also, we felt that we would have more success in stratifying and matching patients according to the severity of their radiation injuries for bladder and rectum by identifying procedural and surgical interventions commonly applied to these injuries,” said Feldmeier. One of the obvious restrictions of using CMS billing data is that the corresponding medical records are not available because of HIPAA restrictions.

Refining the Process

This working group, along with consultants from D&D, have met on a regular basis since July 2018. The biggest challenge they have reported has been to develop surrogate measures of severity for patients in both the hyperbaric-treated group and non-hyperbaric group to ensure that both cohorts of patients comprised patients with comparable severity. The dilemma, Feldmeier notes, is how to match these comparative groups without access to the clinical records. However, by stratifying both groups using billing codes that indicate interventions consistent with severe radiation injury, the team can more readily identify those patients who are intended to be the object of the study.

Both radiation-induced cystitis or proctitis vary significantly in the severity of involvement. A single episode of blood in the stool or urine after radiation therapy might be coded as radiation proctitis or cystitis but would likely progress to complete resolution spontaneously or with minimal intervention. The team’s intent is to compare two groups of patients who have a substantial injury that is likely to progress without effective therapy. The approach will be to restrict the study to patients who require interventions such

as frequent transfusion or a surgical corrective procedure indicative of the severity of their injury.

Final Steps

The team's expectation is that this study will be presented at next year's annual meeting in Puerto Rico, with publication in a peer-reviewed journal shortly thereafter.

"Those of us who have treated radiation injuries with hyperbaric oxygen have seen consistent dramatic clinical response," said Feldmeier. "If we can make the case

that hyperbaric oxygen is not only an effective clinical intervention but also effective in reducing the cost of managing these difficult disorders, we believe that CMS and other third-party payors will take note of the cost savings and readily approve hyperbaric oxygen as appropriate for patients suffering from serious manifestations of radiation-induced rectal or bladder damage."

— Based on an original UHMS article in by Dr. John Feldmeier at: <https://www.uhms.org/publications/pressure/fourth-quarter-pressure-2018/viewdocument.html> ■

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Meet the Course Director: Phillip Groff is a professional educator, former US Marine, and law enforcement officer with over 20 years of experience in the training and operational communities. Beginning as a United States Marine assigned to the Fleet Anti-Terrorism Security Teams (FAST), Phill later served on one of the largest SWAT teams in Pennsylvania as an Entry Team Leader and Training Coordinator. Having participated in hundreds of tactical operations, he gained invaluable experience in a number of critical incident skills. As training coordinator, Phill managed all aspects of the team's training development, sustainment training and authored the team's Basic SWAT School curriculum. Currently, you will find Phill teaching active shooter response trainings across the U.S. through Wound Care Education Partners, Vigr Training LLC, and Keystone School Safety Solutions.

CLINIC IN FOCUS

Milpark Hyperbaric Foundation

By Deane Nesbitt Jr.

This summer I sponsored a campaign to raise funds for the Milpark Hyperbaric Foundation. Some might wonder why a Canadian musician would be interested in doing this for a facility in Johannesburg, some 13,000 km away.

I had hyperbaric oxygen therapy myself because of internal radiation burns following treatment for prostate cancer. As I live in Toronto, after extensive research I chose to have my treatment at the Judy Dan Research and Treatment Centre. It's an achievement for any organization to be able to combine professionalism with friendly empathy, and the Judy Dan Centre does that superbly.

One of the professionals at the Judy Dan Centre is Daniel Gericke, who, fortunately for me, has become a good friend. Among his many qualities is modesty about his achievements, and so it took me over three years before I discovered that he was instrumental in bringing about the creation of the much-needed Milpark Hyperbaric Facility. The facility provides treatment to patients whether or not they can afford to pay for it.

Because of Johannesburg's need for hyperbaric facilities, because of Daniel's involvement, and because of the success I had had with HBOT in healing internal radiation burns, it was a no-brainer for me to join those who are raising funds for Milpark.

Apart from donating funds, posting write-ups about Milpark, and soliciting donations, I can contribute my music. As a musician, composer, and film score writer, I can donate DVDs of short films with my music as a "thank you" to other donors to Milpark. One such film that would be a natural because of its association with Africa is *Change for Chimps*, featuring Jane Goodall. It tells the story of a young girl who discovers how chimpanzees have been mistreated (hardly a strong enough word) and vows to do something about it, eventually making a presentation to her hero, Jane Goodall.

Along the way, all of us have been helped by those we can never repay. In such cases, I have always liked the idea that "passing it on," helping out someone else that needs help, is a

way of saying thank you. Supporting Milpark Hyperbaric is a way of doing that for me.

As the young girl, Kendra, states in *Change for Chimps*, "Dr. Jane Goodall says that you don't have to change the whole world. You only have to change one little piece of it, and if I make a difference here and you make a difference there, all our pieces will come together and our world will be a better place."



About the Author

DEANE NESBITT JR. is a Canadian composer, recording artist, and film score writer. He has composed the soundtracks for two recent short films, *Change for Chimps*, featuring Jane Goodall, which has won awards both in Baltimore and Toronto, and *Legacy of War*, featuring veterans of World War II, which was screened last November 11 at the Canadian War Museum.

Deane's music has been aired over 300 radio stations across the US and Canada. One American reviewer ranked his most recent CD in the best 100 music CDs of 2015 and the Best Dramatic Music of the year. His music has been performed in Toronto at several locations, including Massey Hall and the Canadian National Exhibition.

Deane started his career as a lawyer, practicing commercial law for 16 years. While still practicing law, he performed in Europe, where he met and played piano for Hollywood legend, Greta Garbo. He then became involved with the investment business, co-founded an investment management firm, and wrote an award-winning illustrated history of a Canadian investment bank founded in 1912.

Deane has served as a director on over a dozen boards. He presently is on an advisory board for Johns Hopkins medicine, Baltimore, and on the board of the Sharon Francis Institute for Regenerative Medicine, Toronto. He holds degrees in arts and law from McGill University and a certificate from the Owner-President Management Program, Harvard Business School. A family man, Deane's other interests have included hiking, kayaking, landscape painting, photography, and flying. His website is www.NesbittMusic.com.

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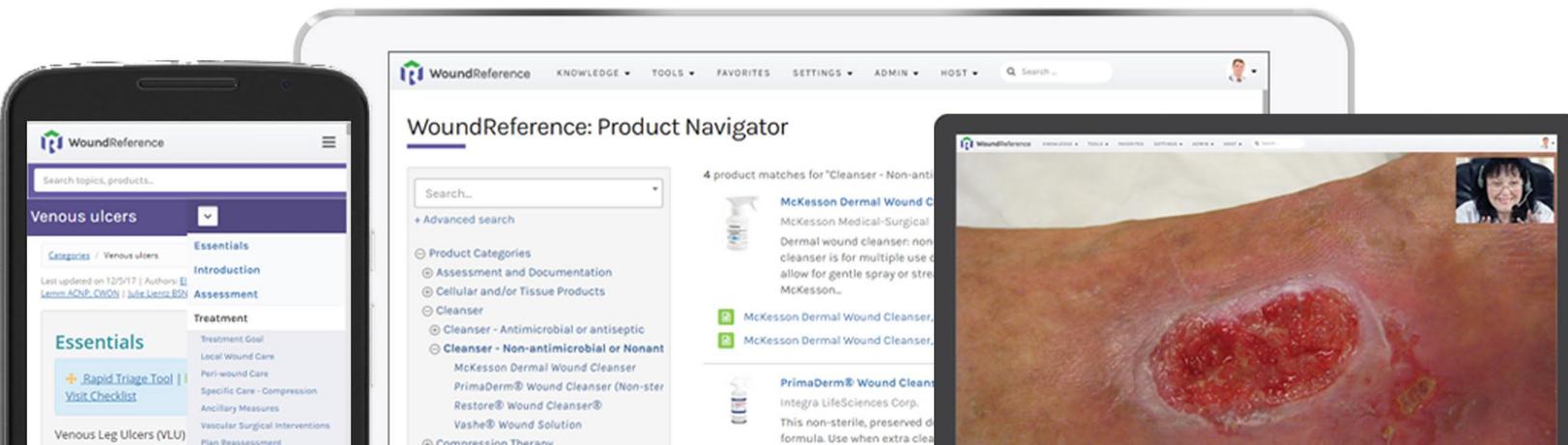
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Dry Run

by Darren Mazza, CHT

During the initial hyperbaric history and physical (H&P), the provider will prescreen each patient for contraindications as well as relative contraindications. Confinement anxiety or claustrophobia is fairly common. An estimated 10% of monoplace patients experience confinement anxiety. I, for one, am severely claustrophobic!

A patient once asked the provider and me to demonstrate the process of sliding into the chamber because the patient was very anxious about going into the chamber. I will never forget that moment when I suddenly got the gut feeling of dread, my palms started to sweat, and I tried to maintain my composure. Everything I had ever said to comfort a patient suddenly left me. I was now on the other side of the comfort zone!

I had to dig deep inside myself to find the strength I needed to do this, without displaying my fears to the potential patient. As I laid down on the gurney, my heart started racing and I kept telling myself, “I’m OK, I’m OK,” but then the tech closed the door. I wanted to scream, but I stayed focused on what I was trying to demonstrate for the patient. I made it through the agonizing 2-3 minutes laying there, but it was one of the hardest things that I had ever done. This gave me a clearer insight to what some hyperbaric patients experience.

Having gone through the process made me take a much closer look at what can be done upfront for a new hyperbaric patient who is claustrophobic. Although the provider can offer medication to the patient prior to their first hyperbaric treatment, I have found a somewhat successful method of resolution for the patient’s anxiety. Every new hyperbaric patient gets scheduled for a “dry run” before the first hyperbaric treatment. Providing a dry run for the patient accomplishes several things.

First, having patients sit on the gurney outside the chamber gives them time to emotionally prepare themselves without being under any time constraints. Second, this opportunity makes the patient feel in control and know the CHT will be

with him or her the entire time. Gaining the patient’s trust is the goal. The third critical part of this dry run is for the CHT to slide the patient into the chamber. I always inform the patient what I’m going to do next, step by step. I have found the most important thing I say to the patient is, **“I’m going to slide you into the chamber but will not close the door until both the intercom is turned on and you tell me you are ready!”**

Once inside, I talk with the patient, informing him or her of the next step, such as placing the intercom phone back down or turning the TV volume on. This provides the patient with a similar experience as to what it will be like when hyperbaric therapy begins. I then tell the patient to lie there for a few minutes while I continue sitting next to him or her. This will allow the patient to have a clear and realistic understanding of what will be encountered on a daily basis.

Take home message: Take the time and schedule a dry run for your next potential patient. This may help eliminate his or her fears and the uncertainty he or she may have regarding a monoplace hyperbaric environment. It has been my experience that this will decrease the patient’s confinement anxiety. ■



About the Author

DARREN MAZZA has been the CHT and safety director at the Center for Wound Healing and Hyperbarics at Swedish Edmonds in Washington since 2008. He began his health-care career working as both an EMT and an emergency room preceptor in Sacramento, California. In 2005, he moved his family to Idaho, where he was department head of the hospital’s outpatient wound-care and hyperbaric center. With more than 28 years in health care, he has been able to apply his past to his current role in the hyperbaric industry, making him a more responsible CHT and safety director.

WOUND CARE CERTIFICATION STUDY GUIDE

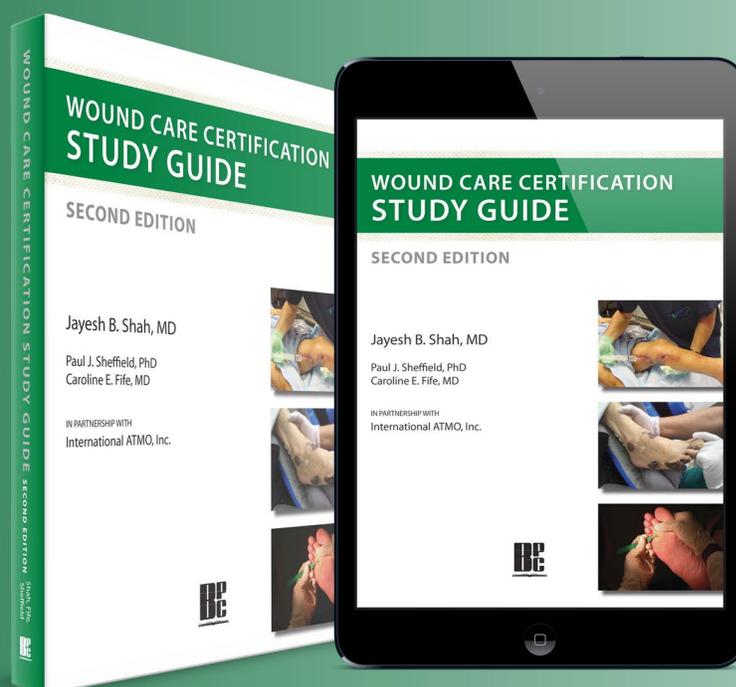
SECOND EDITION

DR. JAYESH SHAH, in partnership with **DR. PAUL SHEFFIELD** of International ATMO and **DR. CAROLINE FIFE** of Intellicure, has created the perfect tool for anyone studying to take a wound certification exam — AAWM, APWCA, CWCN, NAWC, and more.

Now in its second edition, the *Wound Care Certification Study Guide* is fully updated with the latest clinical practices and regulatory and reimbursement information. Drs. Shah, Sheffield, and Fife, along with numerous contributing authors who are considered experts in the field of wound care, have collaborated to create the best possible study resource for these important examinations. The content focuses on key information that wound care certifying agencies consider important in their examinations, with self-assessment questions at the conclusion of each chapter to help participants identify areas of comprehension and concepts that require further study.

This all-inclusive study guide includes:

- Thirty-three informative chapters that review the core principles candidates need to know to obtain wound care certification
- New chapter on hyperbaric oxygen therapy by Yvette Hall, Patricia Rios, and Jay Shah
- Added section on PQRS and quality reporting by Dr. Caroline Fife
- A full-length post-course exam complete with answers and explanations
- Comprehension questions with detailed answers at the end of each chapter
- More than 200 color photos, tables, and diagrams
- Clinical pathways with best practice recommendations for the practitioner
- New chapter on hyperbaric oxygen therapy and added section on PQRS and quality reporting
- Guidance on how to choose the certification



“It was my pleasure to review the second edition of the Wound Care Certification Guide. I found the chapters to be well written and organized, building upon the science of wound healing while including practical clinical applications and sample questions. This text should be useful to all wound care professionals, including the novice and expert alike. It will certainly be an important adjunct for anyone preparing for board examinations.”

— Robert J. Snyder, DPM, MSc, CWS; Professor and Director of Clinical Research, Barry University SPM; Past President, Association for the Advancement of Wound Care; Past President, American Board of Wound Management

“The manuscript is the result of a monumental amount of work. I congratulate all involved.”

— Terry Treadwell, MD, FACS; Medical Director, Institute for Advanced Wound Care



Paperback: \$57.00
Ebook: \$37.00
Both: \$85.00

BestPub.com

Best Publishing Company Announces Publication of 2nd Edition of *Hyperbaric Facility Safety: A Practical Approach* in 2019

The first edition of *Hyperbaric Facility Safety: A Practical Approach* is an integral part of numerous hyperbaric facilities' reference libraries, serving as the go-to standard for a hyperbaric safety program. W.T. "Tom" Workman's experience with the U.S. Air Force's hyperbaric medicine program and development of innovative pressure vessel systems, coupled with his implementation and administration of the Undersea and Hyperbaric Medical Society's Hyperbaric Facility Accreditation Program, have given him a breadth of knowledge unmatched in the hyperbaric technical community.

With his retirement from the UHMS, Tom has undertaken the challenge of updating this classic text. Assisting Tom as co-editor is Steve Wood. Over 30 years ago, Steve transitioned from critical care respiratory therapist to hyperbaric technologist. His varied career has taken him from patient caregiver to chamber manufacturer, consultant, and contract service provider.

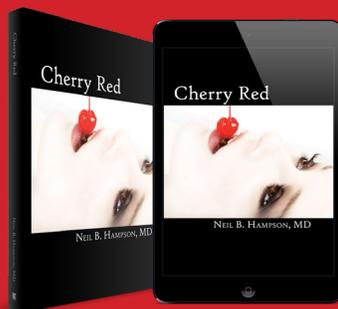
Tom and Steve have been working with an international team of contributors to produce a completely revised and updated second edition of *Hyperbaric Facility Safety*. The editors have endeavored to bring a balance between those readers who need to "get the job done" and those who have a keen interest in the underlying regulatory framework. Given the international growth of the hyperbaric field, the editors have reached out across the globe to assemble a summary of the international regulatory aspects of the field.

This new edition will be structured into two sections:

1. A nuts-and-bolts approach to hyperbaric safety program development and how the safety program integrates all aspects of a hyperbaric facility
2. A section devoted to explanations of the various regulatory agencies that may influence the field of hyperbaric medicine

The second edition will be published by Best Publishing Company in the summer of 2019. ■

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CHERRY RED

by Neil B. Hampson, MD

In this mystery thriller, a series of unusual carbon monoxide poisonings hits Seattle, and former college roommates Dr. Bradley Franklin and police detective Robert Heimbigner team up in an effort to solve the mystery. As the investigation develops, they suspect foul play. Can the old friends uncover the connection between the seemingly unrelated events before more lives are lost?

"In Cherry Red, Dr. Neil Hampson crafts a fascinating murder mystery set in the city famous for coffee, grunge, and innovation. Hampson's recognized expertise in carbon monoxide poisoning is apparent as he takes the reader through scenarios only he could imagine."

— Michael Bennett, MB BS, MD, Conjoint Professor, University of New South Wales, Sydney, Australia, Department of Diving and Hyperbaric Medicine



About the Author:

Dr. Neil Hampson, a Seattle native, is a retired pulmonary, critical care, and hyperbaric medicine physician. He has an international reputation in hyperbaric medicine, specifically in the area of carbon monoxide poisoning. During his clinical career, he treated more than 1,000 patients with carbon monoxide poisoning and published numerous papers in medical journals about the condition.

Hyperbaric Oxygen Therapy Indications Thirteenth Edition



Every hyperbaric practicing physician should have this on his or her bookshelf and every hyperbaric unit should have a copy at the chamber. I consider this publication the “Merck Manual” for hyperbaric medicine. Word for word, it is the most valuable reference on hyperbaric medicine available.

- John J. Feldmeier, D.O., FACRO, FUHM and President of the UHMS



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Our Aquatic Affair

Remembering our original language with life through breath and water.

by Dove Joans

Dove Joans is a creative conservationist who has been researching this evolutionary subject since 1977 through the sciences, arts, empirical evidence, and education, with a focus on protecting wildlife, oceans, and cultural heritages. The opinions expressed in this article are strictly hers based on her ongoing research.

What do we do when one is lost, overwhelmed, and feeling alone in our challenges or grieving over the loss of a loved one? Start with what we have . . . our breath.

We begin our lives with a breath and we end our lives with an exhalation, yet in between an inhale and an exhale lies trillions of possibilities.

How is that?

We acknowledge that in our bodies, we breathe . . . 70 trillion cells with life. Then, there's 10 molecules of water surrounding each cell of energy. That's 700 trillion molecules of "water cells" communicating with each other, every second of every day.

Possibilities. Hope. Connection.

So, how may we live with this precious gift we've been given? Breath. To share, to hold, to give, and to behold as the beautiful key to our existence. A mystery to unfold, just like Nature.

The science behind Nature (with the big "N") is designed into our very nature



down into our DNA. To emphasize this story of communications, Nature has the first and last word of the day, in a sunrise and in a sunset . . . two phenomena we humans love to watch and experience as an important memory, which we in turn store in our cell memories, secured by H₂O.

"Our nature in Nature" is a cellular and mathematical design we can find in

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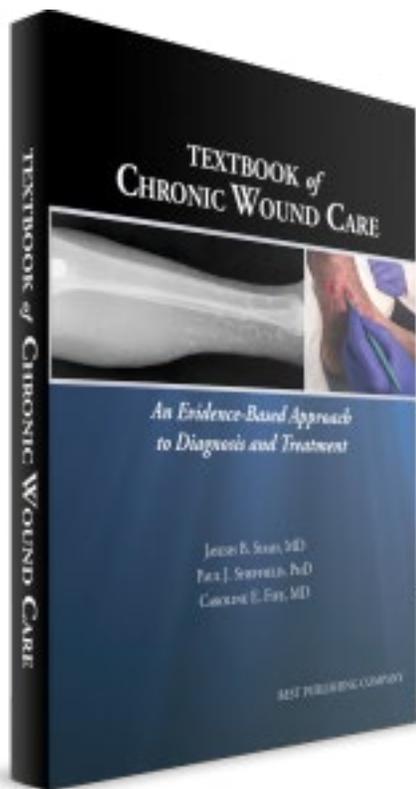
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TEXTBOOK of CHRONIC WOUND CARE

*An Evidence-Based Approach
for Diagnosis and Treatment*

by Jayesh B. Shah, MD,
Paul J. Sheffield, PhD,
and Caroline E. Fife, MD

Available on Amazon and BestPub.com

About the Book

This textbook is a companion reference book for the *Wound Care Certification Study Guide, 2nd Edition*.

This book belongs in the library of every practitioner who treats chronic wound care patients. It proves to be a valuable text for medical students and all health-care professionals - doctors, podiatrists, physician assistants, nurse practitioners, nurses, physical and occupational therapists - in various settings. It provides thorough understanding of the evidence-based multidisciplinary approach for caring for patients with different kinds of wounds.

This textbook provides the best diagnostic and management information for chronic wound care in conjunction with evidence-based clinical pathways illustrated by case studies and more than 350 pictures in addition to up-to-date information for the challenging chronic wound care problems in an easy-to-understand format.

Features

- Chapters are written by more than 50 well-respected leaders in the specialty of wound care.
- Balanced evidence-based multidisciplinary approach to chronic wound care
- Exclusive key concepts in every chapter for a quick review
- Excellent resource for preparation of wound care certification exams with 250 questions and answers
- Chapters specifically focused on wound care in different care settings
- Chapter on telehealth and wound care addressing the future of chronic wound care
- Deep understanding of value-based care in wound care in the United States
- Chapter on healthcare payment reform and the wound care practitioner
- Separate sections on approach to wound care in various countries globally



99% of all life forms for two reasons: connectivity and regeneration. Maybe this sounds familiar to you.

Sharing

The science of breath is for sharing. The 99% factor and the 7% equation can assist in supporting this concept. The 99% factor is the universal respiratory exchange we each share with 99% of all living forms through our DNA. Our

respiratory system is an active part of the respiratory exchange: “breathing air, absorbing oxygen into the bloodstream, and breathing out carbon dioxide.” Plants do it, animals do it, we do it.

This type of sharing is discussed in an article, “Genetics, DNA, plants and humans.” (<http://www.saps.org.uk/saps-associates/browse-q-and-a/473-howmuch-dna-do-plants-share-with-humans-over-99>)

The 7% equation is our connectivity to life on a tangible and daily level.

I watched a great TEDx talk (<https://youtu.be/rPh3c8Sa37M>) from astrophysicist and GoogleX co-founder, Tom Chi, who speaks on “Everything is Connected.” He reminds us that every day we are breathing **out** 7% of our cells (DNA), which is becoming part of our planet’s circulatory system. Then, we are also breathing **in** 7% new cells molecules. The cell molecules we breathe out travel across our globe via “airstreams,” making new life (DNA structure) for a plant, animal, or another human being.

It is exciting that all life on Earth, through cells, are transmitting, receiving, exchanging, transforming, and storing matter, energy, and information.

Holding

What do we find ourselves doing in anger and fear? Most likely, “holding our breath.” This type of breath holding is something we typically do unconsciously in moments of tension, worry, and frustration. Essentially, it is the opposite of letting go, the natural exhale, thus cutting off the air supply to our cells, which doesn’t allow proper cellular function like thinking clearly or processing information.

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Holding our breath in stressful circumstances often goes unnoticed, yet ultimately affects all of the functions of our body and mind. Learning new types of relaxed breathing can determine what brain waves we are triggering and the DNA coding we're able to access.

Try engaging in some type of exercise for 20 minutes or more each day, such as walking, swimming, stretching, bicycling, dancing, or a sport you enjoy. Choose an activity in which you reconnect with your breath, so "relaxed" signals can be sent to your sensory systems, which naturally gets recorded into our memories.

To learn more from a yoga perspective, please click on this link: [Are You Holding Your Breath? Here's How \(and Why\) to Stop Pausing](#)

Giving

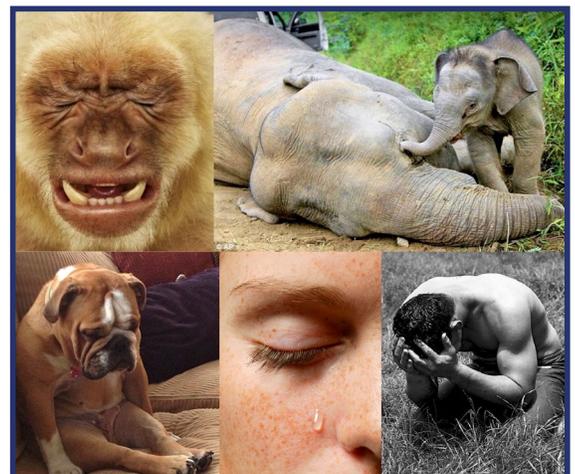
Breath is given to us how? By the courtesy of the ocean (and the heart-forward dynamics of Nature itself, with examples of those mathematical equations found in a wave, the palm of our hand, a leaf, or in a seashell). We exist, live, and thrive because of the water element of our planet, mainly, the ocean! The ocean is in every breath we give and take.

So while we're busy going about our day on a farm in Ohio, in a skyscraper in Manhattan, or in a recording studio in Nashville, we're able to do that only from *the gift of the sea*. If that seems far-fetched or impossible, we are daily reminded of the essential aquatic connection and dependence through our blood, sweat, and tears.

- Our Blood—moves like an ocean wave, in a vortex motion, the "spiral of life."
- Our Sweat—controls and balances our bodies' temperature and is made up of mostly water with small traces of dissolved solutes.
- Our Tears—have about the same osmolality as blood plasma, with half the salinity of the ocean.

Still, we share saltwater tears with other nonhumans like dolphins, whales, elephants, horses, dogs, pigs, and chimpanzees. For those who have experienced nonhuman experiences or have animal companions, you might have noticed and felt their array of deep feelings, with the powerful reactions that often accompany grief like crying, just like we do.

Sweat and tears systems have evolved in humans as an aquatic feature, as an excretory system for salt. Yet, have we forgotten these essential water connections? What might be the key in bringing us back to remembering?



Behold

Imagine our lives no longer being about control, but about consciousness. This concept may sound confusing, yet I'm referring to the continual trying to control the outcomes, especially how Nature is divinely working. We are unlocking many mysteries in life when we work alongside this powerful and creative force, for example, when we learn helicopter maneuvers from a dragonfly's life or when we study spiders and silk worms to determine the strength in fibers.



We would let out a big sigh of relief knowing our breath is working together with Nature, ourselves, and one another, exhaling out the tension, realizing that trying to control is a struggle against our very nature and connection with life.

Breath + water has been given to us for the remembering. Water is giving us our breath, and both are giving us our ability for connectivity with all of life. Empirical evidence from 40 years of research in the cognitive sciences of animal communications, especially

dolphins, has shown me this.

In the second part of this series, "Our Aquatic Affair: Dolphin in the Womb," we'll be exploring the connections humans have with cetaceans from the womb to the moon, touching upon telecommunications, as well as quantum physics. ■



About the Author

DOVE JOANS, aka DOLPHINGIRL, is a creative conservationist, author, speaker, and explorer with The Explorers Club in the cognitive sciences of dolphin communications since 1977.

www.Dolphingirl.org

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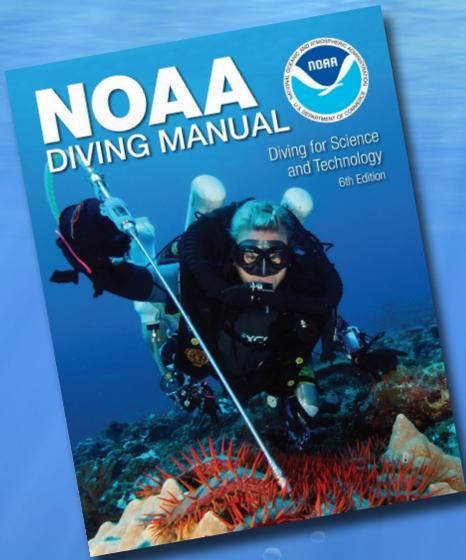
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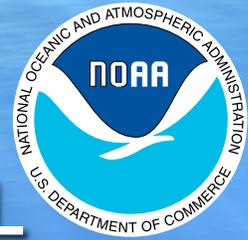
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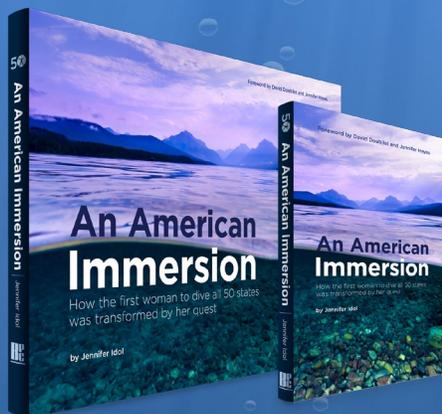
NOAA DIVING MANUAL



Diving for Science
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This 800-page sixth edition of the *NOAA Diving Manual* builds on earlier editions, combining new developments in equipment and cutting-edge methods and procedures to provide a reference text that is useful for not only scientists but also all divers.

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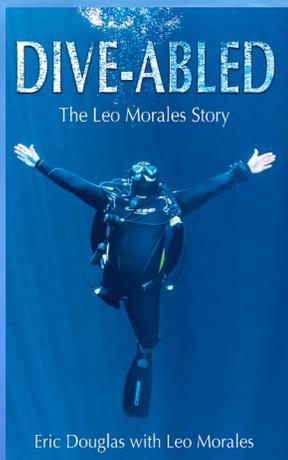


COMMERCIAL DIVER TRAINING MANUAL

The 6th edition of the *Commercial Diver Training Manual* is an almost total rewrite. Where previous editions were designed to be utilized in conjunction either the *NOAA Diving Manual* or the *U.S. Navy Diving Manual*, the 6th edition has been written as a stand-alone work that covers history, physics, physiology, diving medicine, and first aid in addition to diving techniques, diving equipment, and working underwater. Updates in the 6th edition include the following:

- comprehensive rewrite that can be used as stand-alone reference
- extensive index
- easy-to-read formatting
- new color photos, tables, and figures
- colorful book cover

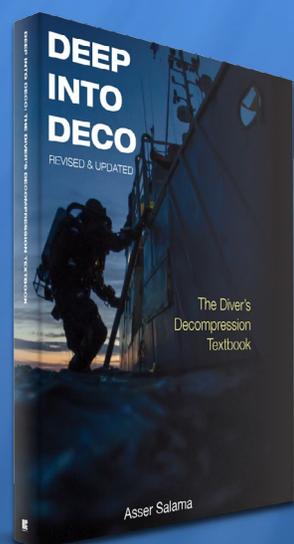
Available on Amazon and BestPub.com



DIVE-ABLED: THE LEO MORALES STORY

by Eric Douglas with Leo Morales

If you ask Leo Morales, nothing is impossible if you set your mind to it. And he should know. After he lost his right leg to cancer, Leo struggled with life. But he decided his disability would not define him. When friends suggested scuba diving as part of his physical therapy, he was hooked. He quickly progressed from diver to dive instructor and technical diver. Leo has set two world records as a disabled diver, one for depth and one for distance underwater, and tirelessly travels to share his message that disabilities are only in the mind.



DEEP INTO DECO REVISED AND UPDATED

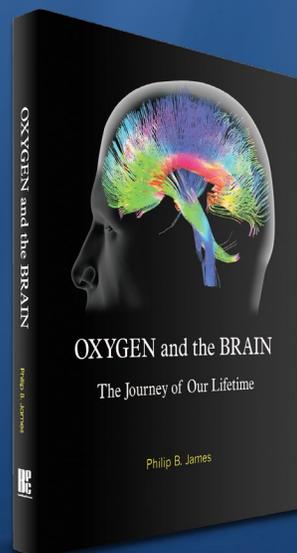
by Asser Salama

This second edition of *Deep Into Deco* has been fully updated to reflect the latest research outcomes. Chapter summaries have been added to give a quick overview of each chapter. A new section on nitrogen and helium kinetics has been added as well as a second appendix for calculating the acceleration in post-diving no-fly time associated with breathing surface oxygen.

Deep Into Deco is a comprehensive and well-written reference text that covers various topics of decompression theory. It portrays the latest developments and controversial issues in technical diving in a way that is straightforward, easy to read, understandable and free from technical jargon.

With a writing style that is a mix of strict no-nonsense reporting along with interesting storytelling, *Deep Into Deco* includes interviews with accomplished divers, industry professionals, researchers and software developers.

This book is a must read for any diver who wants to understand decompression theory, how it evolved, what it accomplished and where the latest research is headed.



OXYGEN AND THE BRAIN: *The Journey of Our Lifetime*

by Philip B. James, MB, ChB, DIH, PhD, FFOM

Following the human journey from conception to old age, *Oxygen and the Brain* presents evidence amassed over more than a century that can transform the care of patients with birth injury, head trauma, multiple sclerosis, and stroke and can even reverse decline in old age. There is no more necessary and scientific action than to correct a deficiency of oxygen, especially in the brain, and it is simple to give more.

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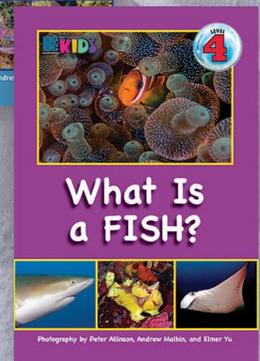
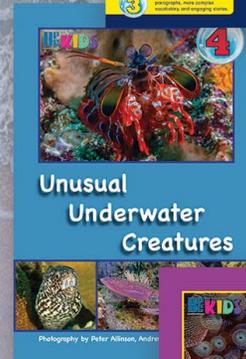
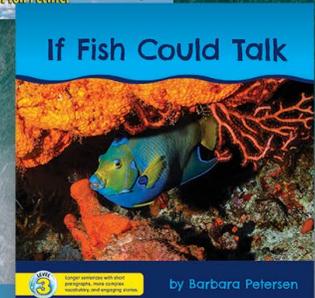
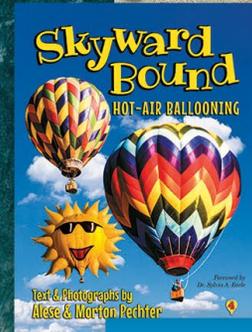
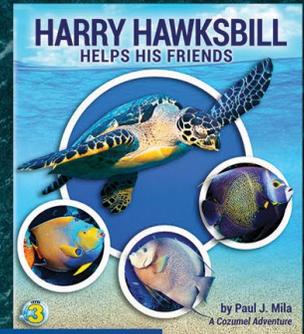
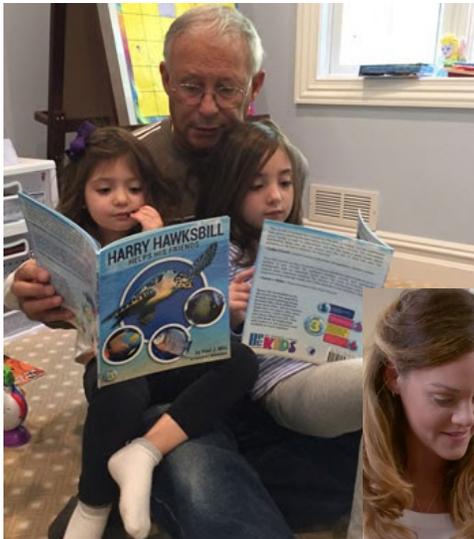
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