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# MEDICAL PREPAREDNESS FOR THE CRUISER AND OFFSHORE VOYAGER

by Denny Emory

"Marianne, this is *Fireball II*, over." It was Mack. We had partied the night before while anchored in a beautiful and isolated bay on the south shore of Viti Levu in the Fiji Islands. I could hear the tension in his voice and responded. He said, "I need your help." I didn't need any more details and sprung into action, grabbing the first aid kit while en route to the dinghy. When I arrived at *Fireball II* I found that one of his crewmembers, Betty, had slipped going down the companionway and hurt her shoulder. To be honest, I was relieved that it wasn't a life-threatening situation. As a former whitewater kayaker and trained Wilderness-EMT, I had always had an interest in the subject of shoulder injuries and paid special attention during advanced training. Professional medical care was at least 24 hours away and Betty became the focus of my immediate attention. After an evaluation, I determined that she had indeed dislocated her shoulder and I was able to successfully reduce it. Although she continued to have some discomfort for a few days, it was a happy ending to say the least. The outcome was actually the result of proper training and preparation for the inevitable - a medical emergency where access to professional medical assistance was not an option.

## SOURCES OF INFORMATION FOR OUTFITTING

There is no single source of information for outfitting a boat and no perfect way to prepare for a first aid or medical emergency while onboard. It is vital that one considers all of the information and advice available, updates equipment as required and continues the learning process through experience and training. It is indeed difficult to fully prepare for any and all contingencies; yet, for many, it is an interesting and enjoyable part of the overall process, with the reward possibly being life saving.



Cruiser Prescription Kit by OceanMedix.com

The boat owner can refer to a number of sources of information in regard to medical outfitting and training. Boating publications regularly feature informative articles or annual issues on seafaring or safety at sea. The selection of marine first aid and medical manuals, noted below, and many offshore sailing books have information pertaining to medical preparation and outfitting. The *Voyager's Handbook*, by Beth Leonard, and the *Offshore Cruising Encyclopedia*, by Linda & Steve Dashew, are both good examples. A number of organizations, including the United States Sailing Association (US Sailing) and the U.S.Coast Guard Auxiliary, along with many event organizers, provide checklists, additional training and informative seminars featuring noted experts. The Safety-At-Sea Seminars, TrawlerFest and Bob Bitchin's Advanced Cruising Seminar are popular examples. Chandlerys, catalogs and marine retail outlets also often offer checklists of onboard medical products, and one's own personal physician or pharmacist can provide valuable assistance.

## GEAR & EQUIPMENT

Every boat should have the appropriate first aid and emergency medical equipment, prescription medications, supplies and a reference manual suitable for the intended endeavour.

## First Aid and Medical Manuals

The first aid manual recommended by the International Sailing Federation (ISAF) is the International Medical Guide for Ships, published by the World Health Organization. As the title would imply, it is actually

written for ships and is quite an extensive reference.

The United States Sailing Association (US Sailing) endorses the above, and additionally recommends two manuals that are written more specifically for yachting. The first is A Comprehensive Guide to Marine Medicine, written by Dr. Eric

Weiss and Dr. Michael Jacobs, released in 2005; and building upon the popular A Comprehensive Guide to Wilderness & Travel Medicine, written by Dr. Weiss and first printed in 1992. The second is Advanced First Aid Afloat, written by Dr. Peter F. Eastman. This book, first published in 1972, has become widely accepted and is now in its fifth edition. Both of these manuals address injuries and illnesses, and include information about first aid kits, prescription medications and medical support.

## First Aid & Medical Kits



Coastal Cruising Medical Sea Pak (hard case)

There are a number of options available for an appropriate onboard first aid or medical kit.

The first option is to assemble one from scratch.

This can be an expensive and difficult task as many items may not be readily available or in

the appropriate size or quantity. In addition, one must consider many contingencies and then organize and package all of the items in such a way that they are secure and readily available when needed.

Alternatively, there are two lines of first aid & medical kits developed specifically for the recreational boater. These are the Medical Sea Pak product line by Fieldtux Products, Inc. and the new Marine Series Medical Kits developed by Adventure Medical Kits in consultation with Dr. Michael Jacobs, the noted sailor and marine medical authority. These two product lines do vary with regard to the specific items; yet, each comes in a full range of sizes with the contents of each kit organized by category and contained in clearly marked pouches. The Medical Sea Paks are available either in a rugged nylon soft case or in a hard case, while the Marine Series are available in a foam-padded case with water-resistant zippers.

One might also want to consider a more versatile kit like Doc Blue's Emergency Medical Kit developed by OceanMedix.com co-founder and emergency room physician, Dr. Brent Blue. This kit contains a full selection of useful and multi-purpose items contained in an EMT-style rugged nylon waist pack. This is a kit designed and organized for adventure travel, be it by boat, RV, airplane or ATV.

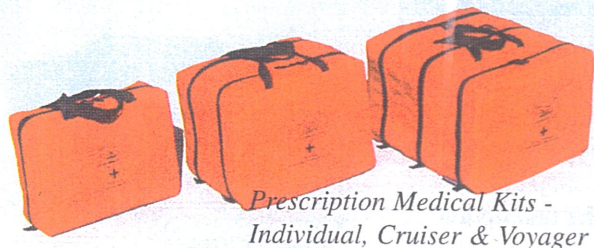
For the truly specialized voyage one can have a custom medical kit assembled specifically for the requirements of that adventure. A number of vendors provide this service including Marine Medical Systems, World Clinic and Maritime Medical Access.



Marine 3000 Medical Kit

Doc Blue's Emergency Medical Kit





*Prescription Medical Kits -  
Individual, Cruiser & Voyager*

### **Prescription Medications**

Prescription medications are a necessary component of any vessel's medical inventory. These medications must be carried in anticipation of a wide range of illnesses and injuries that might be encountered where direct access to professional medical assistance is not an option.

Obtaining the necessary prescription medications can be a time consuming process - doing research, consulting with a physician, and developing a list of the necessary prescriptions that must then be filled at a pharmacy. Prescription medication kits are also available from providers like Maritime Medical International and Marine Medical Systems, although these services are more tailored to commercial and larger yacht applications.



*Cruiser Prescription  
Kit - contents*

An alternative for the recreational boater is a new product line of Prescription Medical Kits developed by OceanMedix.com. These kits come in three sizes ranging from the Individual Prescription Kit designed for one person heading

*Cruiser Prescription  
Kit - open*



out on an extended adventure, to the Voyager Prescription Kit designed for the vessel with a crew size from 1 - 12 people embarking on an ocean voyage of up to 28 days. Each kit is assembled to order, with medications and supplies selected and provided in adequate quantities, and then organized in a custom fabricated, rugged nylon case with internal removable pouches.

### **Medical Equipment & Supplies**

To complete the inventory of medical equipment and supplies, one might consider including a few more items, an automatic external defibrillator (AED) and specialty kits for both wound closure and fluid administration.

Sudden cardiac arrest (SCA) is the leading cause of death in the United States. In the event of a SCA, time is of the essence and the immediate use of an AED can greatly increase the possibility of survival. The Emergency Medical Group has developed two marine defibrillator kits containing the Phillips HeartStart OnSite defibrillator and essential accessories, packaged in a durable, waterproof, hard case. This is the only AED currently cleared by the FDA for over-the-counter sale and designed for use by the ordinary individual. The models are the MDS - Marine Defibrillation Solution and the MDS Plus - Marine Defibrillation Solution Plus Oxygen, which also contains a 247-liter filled oxygen bottle, regulator and combination CPR - supplemental oxygen mask. Training aids and training defibrillator pads are also available.

Both a Suture Pack and an IV Pack have been developed by OceanMedix.com. Each comprehensive pack is designed to supplement the medical supplies included in the standard first aid or medical kit, and is intended for those embarking on extended voyages where more extreme medical intervention may have to be undertaken onboard.



*IV Pack - contents*

### **Over-the-Counter Supplies**

A complete supply of over-the-counter products should not be overlooked. Numerous reference lists have been developed; yet, a tried and true approach is to walk the aisles of a well-stocked pharmacy. A cart can fill up rapidly as one considers everything from sunscreen to Imodium, from Milk of Magnesia to meclazine, from Q-tips to lip balm. To be sure, the item not selected will be the one needed.

## **CREW TRAINING**

The best equipment money can buy is worthless without the knowledge and experience required for its proper use. As a general guideline for all recreational boaters, the regulations set forth by the ISAF / US Sailing require that "at least one member of the crew shall be familiar with first aid procedures, hypothermia and relevant communication systems" up through "Category 1 - races of long distance and well offshore." Realistically, at least two people onboard should have training, in the event that one should have to tend to the other in an emergency situation. Of special interest is the ISAF / US Sailing Regulation for "Category 0 - trans-oceanic races" that requires "at least two members of the crew" are trained in skin suturing, administering IV fluids, giving intra-muscular and intravenous injections, installing temporary dental filling and are able to apply a plaster cast. Granted we are not all heading out on the Volvo Challenge or to the shores of the Palmer Peninsula; yet, the time may come when any one of these types of skills might be necessary and proper training is required.

Basic first aid and CPR training are provided in almost every community by the American Red Cross. The American Heart Association also provides CPR training, and both organizations provide training in the use of an automatic external defibrillator.

Wilderness First Aid (WFA) and Wilderness First Responder (WFR) courses are provided by Wilderness Medical Associates and Wilderness Medical Institute / NOLS in a number of locations around the country. The most useful level of training for the normal crewmember is to become certified as a Wilderness First Responder. Each course is approximately eight to ten days long and provides training in a number of the basic first aid skills, the taking and documentation of a patient's vital signs, and the ability to communicate with professional medical personnel. Time is also spent learning to be resourceful, coping with the emergency medical situation and making due with the materials at hand. Extended Wilderness Emergency Medical Technician (W-EMT) courses lasting 25-28 days are also given by these organizations.

Special programs designed specifically for the offshore mariner are also available. A three-day course in offshore

emergency medicine has been developed by Jeffrey Issac of MedicalOfficer.Net, Ltd. Maritime Medical Access, World Clinic and Marine Medical Systems design and provide medical training for those embarking on specialized ocean adventures, and a number of the maritime training schools offer medical training courses required for professional certification

## **COMMUNICATION AND 24 / 7 TELEMED SUPPORT**

Not many years ago the options for long distance communication were limited to the coconut telegraph, SSB high seas links and ham radio patches. With developing technology it is not uncommon today for the cruising vessel to have satellite and e-mail capabilities, making the practicality of 24 / 7 telemedicine an attractive option.

Providers of 24 / 7 telemedicine include Maritime Medical Access and World Clinic. Both are subscriber / fee based services where the ocean voyager has direct access to an emergency physician in a time of need. Medical advice is clear, thorough and at a reasonable price.

## **PERSONAL RESPONSIBILITIES**

Anyone going on an extended cruise will want to consider having a complete physical examination prior to departure to establish a base-line evaluation, to receive immunizations, and to update any personal prescription medications. It is extremely important to confirm with one's own physician regarding any allergies or personal medications to include dosages, side affects, drug interactions and contra-indications. All information should be written down and a copy should be provided to the skipper to be kept with the boat's medical documents. It is the individual's responsibility to inform the skipper of any and all pertinent conditions in the event of a medical emergency.

Whether going for a cruise in the bay, an extended passage or an offshore voyage, the prudent mariner must be fully prepared for almost any first aid need or medical emergency situation that might arise. Even in home waters, getting outside professional medical assistance or direct intervention on a timely basis may not be possible. Outfitting any boat and training those onboard may feel like a daunting task, but medical preparedness offers peace of mind and is an absolute necessity. ⚓



**OceanMedix.com** .....for the Coastal Cruiser and Ocean Voyager  
**Prescription Medical Kits and Medical Products, Marine Defibrillator Kits**  
**first aid and medical kits, safety, emergency and communication equipment, useful information and links**