



# PFDs

## The Support You Really Need!



Personal" as in "Personal Flotation Device" means just what it says -- if you ever make the unexpected transition from paddler to swimmer your PFD provides the added flotation you personally will really need! To do that, it must have the proper buoyancy, it must be the right size, it must be suited to the type of paddling you do, it must fit, and certainly not least you must be wearing it.

Federal requirements for personal flotation devices relating to canoes and kayaks as of 1995 are simple: There must be at least one Type I, II, III or V PFD on board for each person on board. That holds true no matter the length of the canoe or kayak. That old seat cushion standby (Type IV) no longer qualifies as a PFD in a canoe or kayak. These are the minimum federal requirements. States may and in some cases do set stricter standards—up to and in many cases mandating the wearing of PFDs by certain people in certain conditions.

Don't be confused by flotation ratings. First of all, all PFDs are divided into one of five classes, of which only four meet the legal requirements for PFDs in canoes and kayaks. Each class has a minimum rated buoyancy, ranging from 22 pounds for the Type I and Type V to 15.5 pounds for the Type II and III PFDs. Make note of that "minimum" because size, design and materials may combine to provide more buoyancy than the letter of the law demands.

Buoyancy relates to but is not the same as the size and weight of the person the PFD will support. An

average 150 pound adult has an apparent weight of only 10 to 12 pounds while in the water, a weight easily supported by an approved PFD. A heavily-muscled, big-boned individual with little body fat will need more flotation than a small-boned individual with a high percentage of body fat. If you don't know how much buoyancy you'll need, take a swim while wearing a PFD and learn whether or not it will adequately support you. Keep your arms and legs below the surface and relax. Your PFD should keep your head and chin above the surface.

Second in order but not significance is the design buoyancy of a particular PFD. Every manufacturer, when sending a PFD through the approval and testing process, rates the PFD by the size of individual that particular device will support.

You'll also see usage categories—an adult PFD is designed for a person of more than 90 pounds, while a child's PFD is designed for a person of less than 90 pounds.

**TYPE I**—These "offshore life jackets" the Big Boys of PFDs, with a minimum of 22 pounds of flotation. They're designed to turn most unconscious people in the water from face down to just slightly backwards of vertical, and to support them in that position. They come in two sizes—adult, for people 90 pounds and over, and child, for people less than 90 pounds—and three different fittings. They are probably the easiest jacket to don in an emergency. They are also the most bulky type of

approved PFD and the most uncomfortable to wear while paddling either a canoe or kayak.

**TYPE II**—The "near shore buoyant vest" is the traditional horse-collar life jacket. It has a minimum of 15.5 pounds of buoyancy and comes in four sizes: adult (more than 90 pounds); medium child (50 to 90 pounds); small child (less than 50 pounds); and infant (less than 30 pounds). They will rotate a wearer into a just backwards of vertical position while in the water, but they don't have the righting power of the Type I. While effective in the water, they're not noted for comfort while paddling.

**TYPE III**—The "flotation aid" vest-type PFD is the one most paddlers wear. It has a minimum of 15.5 pounds of buoyancy. Some are made with sheets of enclosed buoyant foam and have a smooth appearance, while others are made of strips of buoyant foam and appear like a series of columns. They are designed for water sports, and are usually the most comfortable to wear while paddling or just lolling about. Many have zipper closures, others have buckles. While Type III PFDs are not designed to rotate a person in the water to a vertical position, they will maintain this position.

**TYPE V**—There are two categories of Type V PFDs: special purpose devices which are only approved in specific situations; and hybrid devices which combine at least 7.5 pounds of foam flotation with inflatable cells which when inflated bring the total flotation to 22 pounds. There are special purpose

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PFDs designed specifically for paddlesports. One pullover PFD, for example, is approved for use as a Type III but only while it is being worn. Take it off, and as far as the law is concerned it is no longer a PFD.

**TYPE VI**—"Throwable" flotation devices include those classic square boat cushions and ring buoys. They're designed to be thrown to someone in the water. As far as the Coast Guard is concerned—and for all practical purposes all the states, territories and related districts in the United States—these do not meet the PFD requirements for canoes or kayaks.

## PFD Construction

The buoyant material in Type III PFDs is made from a variety of closed-cell foams. Closed cell means that each tiny cell within the foam is a separate entity and not connected directly to another cell (unlike a sponge).

There are three general types of construction:

**TUBE**—Tube-type PFDs are easily recognized by the vertical strips of closed-cell foam encased in a nylon covering. Some tube-type vests feature a cuff or skirt below the waist tie. The cuff adds buoyancy and helps protect the lower back. You can fold up the cuff for shorter length when you are wearing a sprayskirt in a kayak. A jacket without a cuff is called a "shorty."

**PANEL**—Large panels of foam are used for the front, back, and sometimes side sections of the jacket. Make sure the PFD fits you closely and moves with you instead of getting in your way.

**FORMFIT**—As the name implies, these are close fitting, contoured jackets favored especially by racers or whitewater paddlers who want maximum freedom of motion.

## Fasteners

A PFD will not help you if you fall out of it. There are three general

ways of keeping your PFD closed about you: zippers, buckles or snaps, and ties. Check that the straps are securely attached, and that the buckles, snaps and zippers are free of rust and corrosion.

Zippers, both metal and plastic, should easily engage and travel smoothly along the locking elements. Generally speaking, large tooth zippers will work more easily in a water, sand and dirt environment. That's not an invitation to abuse them, because all fasteners should be kept clean for proper use. Buckles are more subject to impact damage than other fasteners because of their larger operating mechanism. Tube-type PFDs with both zipper and tie fasteners reduce ride-up and are easier to swim in than equally secured panel types.

## Fit

PFDs are not like sweatshirts — extra-large does not fit everyone! PFDs come in sizes, and are tricked out with a variety of adjusting straps and ties so that they fit snugly. If you slide through your PFD so that you're suspended by your arms from the bottom of the armholes, and only your hair and the shoulder straps are above water, you have a problem.

For some uses, or for some individuals, crotch straps may be advisable. They extend from the back edge of the PFD, pass between the wearer's legs, and fasten at the lower front.

When shopping for your PFD, wear the clothing you'll normally wear while paddling. Don't just admire the cut, the material and the little bells and whistles. Don the PFD and twist into your normal paddling position. Do you have plenty of arm motion when going through the full range of your normal paddling stroke? Can you bend and twist? Is the PFD snugly tight, or is your breathing constricted?

Better yet, get in your boat and paddle with the PFD you're considering.

Visibility can be a safety factor.

Many paddlers believe that every iota of visibility improves their own safety, whether it is part way down through a foaming rapid, on a lake at dusk, or on the ocean.

PFDs, like all pieces of equipment, age. While one may last many seasons if properly cared for, the time will come that it no longer supports you and its fasteners no longer fasten. If you can't bear to part with this old paddling friend, give it a place of honor on your wall at home. Just like with a parachute, you can't afford anything but properly-functioning equipment. ■



## Expedition + First-Aid

In addition to the collection of bandage, thermometer, and tweezers that go in the everyday first-aid kit, consider the following drugs and supplies for the exceptional jaunts:

- betadine or other general wash/ointment for open wounds
- scalpel and suture kit
- air splint or other long-term splinting material
- prescription drugs for the following problems:

allergic reactions, soft tissue infections, diarrhea and/or giardia, urinary tract infections, pain from injury, tendinitis or joint inflammation, eye/ear/nose/throat infections, any special problems known to exist within the group

There are a number of emergency care books written for adventurers, which address the concerns of long-term and wilderness first aid. Two of the best are:

*Medicine for Mountaineering* James A. Wilkerson M.D. The Mountaineers. Seattle, Washington.

*The Wilderness First Aid Guide* Wayne Murry. McClelland & Stewart. Toronto, Ontario (distributed by St. Martins in U.S.).