



# Rafting

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## About the Tutorial

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Rafting is a sport in which players race on water through an inflatable rafter. Rafting can be done either on white water or rough water of different degrees. It should not be confused with canoeing or kayaking because each of these sports use different boats and they have different sets of rules. This tutorial will let you know the basics of Rafting.

## Audience

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This tutorial is meant for anyone who wants to learn and participate in Rafting. It is prepared keeping in mind that the reader is unaware about the basics of the sport. It is a basic guide to help a beginner understand the art of Rafting.

## Prerequisites

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Before proceeding with this tutorial, you are required to have a passion for Rafting and an eagerness to acquire knowledge on the same.

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# 1. Rafting – Overview

Rafting is a sport in which rafters use an inflatable raft to race with other teams. The team that reaches the destination first wins the race. The racing is done on white water or rough water of different degrees. The rafters use double blades to paddle the boat.

Rafting should not be confused with canoeing, kayaking, rowing or dragon boat because all these variants use different boats and they have different sets of rules.



This is a sport in which either an individual or a team can participate. Here one needs to race by rafting. Similarly other participants will also be chasing. The participant whose raft touches the finishing line first is declared as winner. Both men and women can participate in this sport.

## Difference between Rafting and Canoeing

- In rafting, inflatable rafts are used while in canoeing, boats are used which are pointed at both ends.
- In canoeing, a leader decides in which direction the boat has to go while there is no such thing in rafting.
- In canoeing, the leader tells the player at the back to turn the gear to a desired direction while in rafting all the team members are responsible to change the direction and balance the boat.

## Difference between Rafting and Kayaking

- In kayaking, the boat is covered with deck while the boat used in rafting is open boat.
- Kayak is moved by double-bladed paddles while a raft is moved by single-bladed paddle.
- Kayak is made up of plastic while a raft is made up of any material that is buoyant. The material mostly used is PVC.

## A Brief History of Rafting

In earlier days, people used to transport things using rafts, hence the name of rafting came into the picture. In 1842, Lieutenant John Fremont of the U.S. Army first introduced rafting expedition on the Platte River. In ancient days, rafts were made from rubber cloth tubes and a floor.

In 1960s, white water rafting became more widely recognized and white water rafting companies were established. In 1970s, white water rafting made its major changes as leisure sport when it was included in the Olympic Games. In 1980s, as the popularity of rafting was increasing gradually, number of independent companies were started throughout Scotland, South America and Africa.

In 1990s, rafting was included in major events like the Barcelona Games in 1992, Atlanta Games in 1996, and the white water events of the Summer Olympic Games hosted by Ocoee River in Tennessee Valley. The International Federation of Rafting (IRF) was established in 1997. In 1999, the first Official International Championship was held.

Nowadays, white water rafting is still gaining a huge number of popularity.

## Participating Countries

Rafting comes under water sport. Since its inception, the popularity and demand of this sport by different nations grew exponentially since 1997 after instituted in International Federation of Rafting.

Many Asian and Non-Asian countries have their active participation in this sport. Countries like India, Morocco, Bulgaria, Nepal, France, Wales, Switzerland and Scotland have dominated other countries in this sport. The countries that organized the championships of rafting are as follows:

Year	Host Country
2015	Indonesia
2014	Brazil
2013	New Zealand
2012	Czech Republic
2011	Costa Rica

## 2. Rafting – Equipment

Before learning any sport, knowing about equipment is very much helpful as when others give you advice, you need to know what they are talking about. The equipment used in rafting are as follows:

### Inflatable Rafting Boat

Previously the inflatable rafts were very sensitive. They could tear apart during a race and were very dangerous. New technologies are now used in making the rafts which are much more reliable for racing.



### Life Jacket

Life jacket is used for the safety of the rafters. They come with vests and are available in all sizes so that rafters do not face problem in choosing them. The jacket has to fit properly so that the upper part of the body floats in water.

### Helmets

Rafters have to wear helmets to prevent head injuries. The rafters have to choose the helmet that fits their head properly.

### Carbon Paddles

The paddles should be made in such a way that they can be paddled smoothly on the water.

### **Wetsuit**

Rafters wear wetsuit if the water is very cold because wet suit provides thermal insulation which help the rafters to bear the cold.

### **Drysuit**

Rafters wear drysuit when the body is in water. This suit provides thermal insulation to the body except head and hands.

### **Rescue Throw Bags**

Rescue throw bags contains the things which are needed to rescue a rafter if he falls in water. The bag consists of a rope whose one end is attached to the bag and the other end is in the hands of a rescuer.

# 3. Rafting – White Water Classes

Classes of white water are also known as the **International Scale of River Difficulty**. There are six grades of difficulty in white water rafting. The range varies from simple to very dangerous.

- **Type 1** – This type of water is having very small rough areas. The rafters can require either no or little manoeuvring.
- **Type 2** – This water is little more rough in comparison to Type 1. It may contain rocks and very small waves and require manoeuvring.
- **Type 3** – This type of water is called white water having medium waves. The waves are not dangerous but manoeuvring is required.
- **Type 4** – This type of water is called white water having large waves. In addition to that rocks maybe present along with long rapids. Sharp manoeuvring may be needed in this case.
- **Type 5** – In this type of white water there are large waves with high volume. It has the possibility of having large rocks and hazards along with large drops that's why it requires precise manoeuvring.
- **Type 6** – In this type of white water, non-passable rapids are there which can lead to serious injury or drowning.





# 4. Rafting – How to Play?

## Starting the Race

In order to start rafting, first the rafter have to place one hand on the paddle into the water and another hand about one third of the way up from the head of the paddle. This is the best position to start rafting.

The paddle head should be placed into the water so that the head will be perpendicular to the body of the rafter. After that the paddle must be drawn away from the boat. If your paddle is placed in the right position, then that should create the least amount of resistance.



## Rotating the Paddle

It is always beneficial to know that once your arms are fully extended then rotate the head of the paddle to 90 degrees so that the head of the paddle will be parallel to your body. That will help you to rotate in your direction. Pull the paddle in the water back towards your body. This should create a lot of resistance, pulling your boat in the direction of the paddle.

## Rafting Techniques

Rafts in white water rafting are very different vehicles than other water vehicles like canoe and kayak, and have their own specific techniques to manoeuvre through white water obstacles. Examples of these techniques include the below.

- **Punching** – On rivers, hydraulics raft dodged by canoes and kayaks are sometimes punched/strike by rafts. This means the rafting crew paddle the raft to give it maximum speed to push through the water without getting stopped.

- **High siding** – If a raft is caught in the water, sometimes it will go quickly sideways. In order to stop the raft flipping on its inside edge, the rafters climb to the side of the raft furthest downstream, which will also be the side of the raft highest in the air leading to it.
- **Low siding** - Sometimes a professional manoeuvre used at low water to slide through a channel less than the size of the craft.

## Capsizing

- **Dump truck** –If a raft dumps any of its passengers or all of its passengers but remains upright, then it is said as dump-trucked.
- **Left over right or right over left** – Rafts may capsize due to large waves or hitting a rock which results in flipping. The riders can avoid flipping by good paddling under skilful guidance.
- **Taco** – Taco occurs if a raft is soft or is not fully inflated. In this case, the middle part of the raft buckles and the front part nearly touches the back part. Reverse taco also occurs due to the pulling down of nose or stern of the raft in water. This results in touching of nose, middle or back of the raft by the buckles.
- **End over end** – End over end occurs very rarely. This occurs when the load of the raft is lightened through dump-trucking. Due to this, the rafts flips as dump-trucking allows water to overcome the weight of the raft.
- **Downstream flip** – A raft may capsize due to collision with a rock, another raft or any other stationary object. It results in instability of the raft flipping it towards downstream. This flip worsens due to the load of the riders and they can overcome it by pulling the boat.
- **Back roller** – A broad reversal is often formed below a dam. Rafts can be unsafe to back rollers, because they can quickly fill a raft and then push it down at the back.
- **Dark-siding** – When the raft starts to flip, then the rafter climbs over a side. Anyone who witnesses one of these owes beer to the successful dark-sider.



## Re-righting

- **Flip line** – In commercial rafting, flip line technique is used frequently. Under the guidance of the instructor, the rafters can avoid flips as the instructor carries a webbing having a carabiner. The instructor attaches it to the raft on its perimeter line. The raft is re-righted when the riders hold the perimeter line of the upside down raft. Then they lean to that side where flip is attached.
- **Knee flipping** – A small capsized raft can be knee-flipped. In this case, a rafter has to hold the webbing at the underside of the raft and push their knees into the outer tube. While leaning back, they lift their body out of water from an overturned raft.
- **T rescue** – Some rafts are large enough that they need to be turned with the help of another raft. The raft lands at the side of the raft. This is known as T rescue.
- **T-grip re-flip** - The T-grip on a rafting paddle may be used to re-flip light rafts by inserting the Tee into the self-bailing holes around the entire perimeter and re-righting the boat in the same manner as the flip line technique.



# 5. Rafting – Rules

All the rules and regulations of rafting are governed by International Rafting Federation (IRF). However, each country has its own governing body too that acts under IRF. With slightest difference, most of the governing bodies have some common rules. In this section, we have discussed about some common rules and regulations.

## Entry Fees

Participants have to pay a fess which is non-refundable and non-transferable.

## Registration Policy

- The event status of a participant is confirmed through online registration.
- Friends and relatives of any participants are not allowed at those places where rafting is being played.
- The age of a participant must be six years or more.
- All the participants have to wear life jackets for the time they are participating in the race. The jacket cannot be removed without the permission of the instructor.
- The participants have to be seated in the raft and avoid horseplay.
- The participants are not allowed to drink alcohol as they may imbalance or cannot see clearly.

## Safety

The participants have to obey the safety precaution rule in order to do safe racing as rafting is a very dangerous sport. Safety regulations raft operators are available with whom the participants can discuss about the rafting area and rules. The participants also need to know about the equipment, company's qualification, and the guide. Rafting has now become safer due to increase in technology and specialized equipment.

## Risks

Risks in white water rafting include both environmental dangers and improper behavior. Certain features on rivers are inherently not safe and have remained consistently at all the time. These would include fallen trees on the way, dams (especially low-head dams), undercut rocks, and mostly important is dangerously high waterfalls. Rafting with experienced guides is the safest way to avoid such hazards.

To erase the illusion that rafting is akin to an amusement park ride, and one need to remember the personal responsibility that each rafter should faces on a trip, rafting out fitters generally require customers to sign forms indicating understanding and acceptance of potential risks.

## 6. Rafting – Points to Note

Rafting is a sport of balance, so one should understand the ways in which he/she can keep himself/herself upright on a raft. It is very important to have a good knowledge about the skills needed to stay afloat once in the water.

There are some essential things to know about white water rafting which will help keep you safe and assist you as well as your team on the trip. Being known about white water rafting will enable you and your whole group to better work together and start you off on a more successful trip. The best way to learn the ropes is simply to get in the raft and do it. However, there is plenty of information that you should know before you prepare for the rafting trip.



### Appropriate Clothing

One should wear appropriate clothing like non-synthetic materials.

- Always try to wear clothing that dries quickly. Swimsuits and swim trunks are a great choice always. Cotton clothing must be avoided.
- Sturdy water shoes are recommended to wear while rafting. One shouldn't wear shoes like flip flops and slippers that can come off easily.
- Life jacket is mandatory to wear before getting in the raft.
- If a player has sensitive skin, then he/she should bring sunscreen and a pair of sunglasses for the trip.

- One should also bring an extra set of clothes to change in case one gets wet, especially if the weather is cold. It should be secured at your destination or in a dry pack on the raft.
- Pack some water to drink and securely wrapped snacks.

### Balancing the Boat

Always try to balance your boat. All riders should be placed strategically so that those of similar weight and paddling power are opposite each other. The guide should sit at the back of the boat. The guide will use his paddle like the rudder of the sailboat and move it back and forth to help in steering the boat. More dramatic navigations are made by placing your paddle in the water to one of the sides of the boat.

### Navigation Commands

One must understand the navigation commands of white water rafting for a smoother and safer ride down the river. It will also help you to understand that if you want to turn right, then you have to paddle on the left side of the raft.

- A command of **all forward** means everyone is instructed to paddle forward.
- Other commands are **all rest** or **all back**.
- Steering commands are **left back** and **right forward** or the opposite should be known by the rafter before playing the sport or going for the trip.

### Getting Unstuck from a Rock

Any rafter should know how to get unstuck from a rock. Sometimes, even in rapid waters, a rock will come out of nowhere and get hung up under the raft or anywhere, trapping you. In that case try to locate where the rock has the raft caught. In order to maintain the regularity, you have to carefully shift the majority of the weight in the raft to the opposite side. Use your paddles in the water to push against the current and off the rock.

# 7. Rafting – Championships

International Rafting Federation (ISF) is the governing body of this race competition. Every participating country has its own governing body to organize the sport successfully throughout the calendar.

## Project Raft

The World Rafting Championship has originated in the international events of Project Raft in which more or less 50 teams compete in various disciplines including **Slalom** and **Down River**. Project Raft was introduced by California river guides Jib Ellison and Mike Grant and the first event, the **Chuya Rally**, was a collaborative effort between them and the Siberian river explorer, Misha Kolchevnikov.

## Camel White Water Challenge (CWWC)

Tony Hansen tried to get Project Raft 1994 in the Zambezi River. Unfortunately Project Raft stopped after the Turkey event and after that Tony found his own sponsor for the event in the form of Camel. He also designed the event along slightly more competitive lines. This was the birth of the Camel White Water Challenge (CWWC) which was then organized on the river Zambezi, Zimbabwe/Zambia (1995–1997 and 2001), Reventazon and Pacuare Rivers, Costa Rica (1998), Orange River, South Africa (1999) and Futalefu River, Chile (2000).



## Status of World Championships

The last three CWWC events were organized before the World Championships in rafting and for this reason the teams need to qualify through the selection events at the national and continental levels in coordination with the International Rafting Federation (IRF). In the year 2000, the IRF decided to hold the World Rafting Championships every two years and eliminated the selection events at the continental level to enhance the development of the sport at the international level.