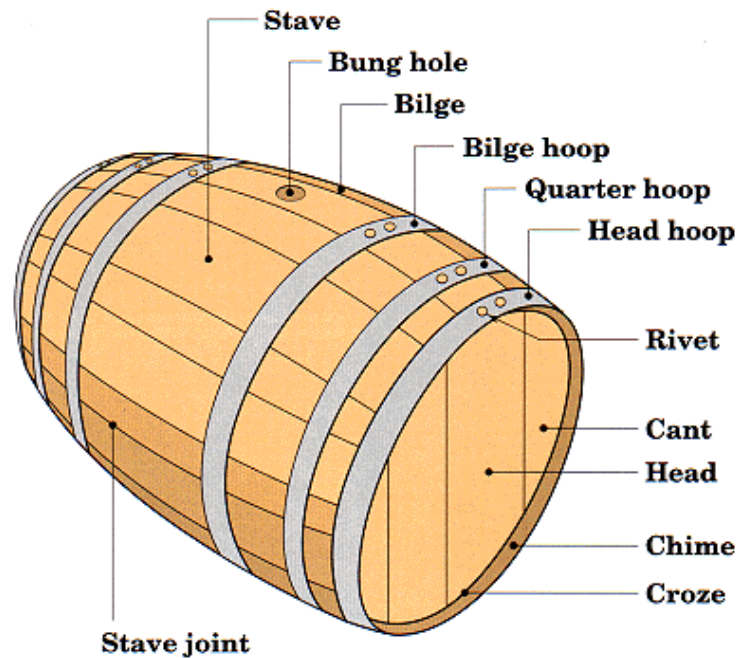


## How to Care for Your Oak Barrel

Welcome to the amazing world of Barrel ownership! With your new friend you are entering a new and exciting level of wine making. With due diligence and proper up keep of your barrel it will serve you in your wine making for years to come.

First let's get to know your barrel with a little anatomy lesson:



### New barrel care:

The first thing to do when you get your barrel is to check for damage or defects. Make sure there are no cracked or dislocated **Staves**, ensure the **Chime** and **Croze** are intact and that there are no large gaps, If the barrel is excessively dry make sure the **Hoops** are in their proper location before proceeding to the next step.

### Rehydrating your Barrel:

Depending on how long it has been since the barrel was made it will be dry and will need to be swollen with water to ensure a liquid tight seal.

There are two ways to do this, start with the first method and continue on with the second method (if necessary).

### The French Method (Hot Water):

Start with hot **chlorine free** water. **Warning:** if you do not have a filter on your tap water and you are on a municipal water system you have chlorine in your water. If you set out the needed volume of water over night it should dissipate, or use store bought water.

Fill the barrel to 20% of its volume with hot water, insert a solid bung, and give it a thorough shaking. There will be some spraying from between the Staves, this should subside quickly depending on how dry your barrel is.

Once the leaking from the **Stave Joints** has slowed down turn the barrel on it's **Head**. Fill the outside of the **Head** that is facing up with hot water. Wait 20 minutes and turn the barrel over, fill the other **Head** with hot water and wait 20 minutes. At this point, if the barrel wasn't overly dry, it should be water tight. To test this fill the barrel all the way up and watch for leaks. If there are any leaks leave it full of water for up to 24 hours (this is the second method). If your barrel still leaks after the 24 hour soak, empty and refill with fresh water and soak for 12 more hours. If it still

leaks after 36 hours there is probably a structural flaw and you should not put wine in it (this happens in a very small percentage of barrels, contact the store if you experience this issue).

If your barrel is sealed it is ready for wine.

#### **Your new barrel is ready for wine!**

Since the barrel was recently sanitized by fire during toasting, there is no need for chemical sanitation with new barrels.

Simply rack wine into the barrel. Check the fill level often and top off as needed. Smaller barrels will need to be topped off more often. Make sure to maintain an adequate level of sulfur dioxide in the wine once malo-lactic fermentation is complete.

If there is an active Malo-Lactic Fermentation, use a vented bung or airlock until all CO<sup>2</sup> production has stopped.

Refilling your barrel with wine right away after racking wine out is the best way to store your barrel. After racking the aged wine out, simply rinse the sediment out with fresh **chlorine free** water and rack new wine in to it.

#### **Care and upkeep of your barrel:**

The best way to keep your barrel hydrated and sanitary is to keep it full of wine. That may not be possible some years and so you will need to employ a few tactics to ensure the longevity of your barrel.

#### **Dry storage 1-2 months**

Clean, rinse and drain the barrel. Burn a ¼" long piece of sulfur stick in the barrel stoppered with a solid bung. Wrap only the **Bilge** area in plastic wrap to maintain moisture in the body of the barrel. Do not wrap the **Heads** of the barrel as this will prevent it from breathing and will encourage mold growth (put a piece of wire through the piece of sulfur stick and suspend it through the Bung Hole and hold in place with the bung). **Do not** allow burning sulfur to touch wood.

#### **Dry storage 3-9 months**

This length of time should be avoided but if it can not be, start with the first storage step. Then every 2 months unwrap the barrel, rinse with fresh **chlorine free** water, and fill with water for a few hours to seal any leaks that have developed, and drain. Repeat steps from above (Dry storage 1-2 months).

#### **Longer than 9 months**

Fill the barrel with a holding solution of citric acid and potassium metabisulfite (KMS) at a rate of 4g citric acid 8g KMS per gallon of barrel volume. Store the barrel as if it has wine in it and top off every few weeks. This method will leach oak flavor from the wood over time and should be used as a last resort.

#### **Removal of tartrate crystal build up:**

Make a solution of Soda Ash and fresh **chlorine free** water, 2 oz. of Soda Ash to 3 gallons of water. Make enough solution to fill the barrel 1/4-1/3 full. If the barrel is small enough to lift and shake, splash the solution around for a few minutes. If it is a larger barrel turn the barrel from the "10 o'clock" position to the "2 o'clock" position every 10-15 minutes for a total of 15 minutes on each side. Drain, rinse, and flush with a solution of citric acid and water at a rate of 1 oz. citric acid to 1 gallon of fresh chlorine free water. This solution will neutralize the Soda Ash. Rinse with fresh chlorine free water, drain and fill with wine.

#### **Barrel age**

If the barrel is new or younger it will take less time to reach a particular oak level, if it's older then it will take longer. The flavor compounds leach out of the wood at different rates so the character it imparts will change over time, giving the barrel a "sweet spot" in its age.

#### **Barrel size**

This is all about surface area to volume ratios. With a larger barrel, 30-60 gallon, there is much less surface area in contact with the total volume of wine which will slow the extraction and evaporation rates. With a smaller barrel, 5-15 gallon, the higher level of contact with the wine speeds up the process.