How Red Wine is Made: Follow Along Step by Step

Red wine differs from white wine in one important way: the juice ferments with grape skins to dye it red.
Of course, there's more to red winemaking than the color. Learning about the process reveals secrets about quality and taste that will improve your palate. So, let's walk through each of the steps of how red wine is made from grapes to glass

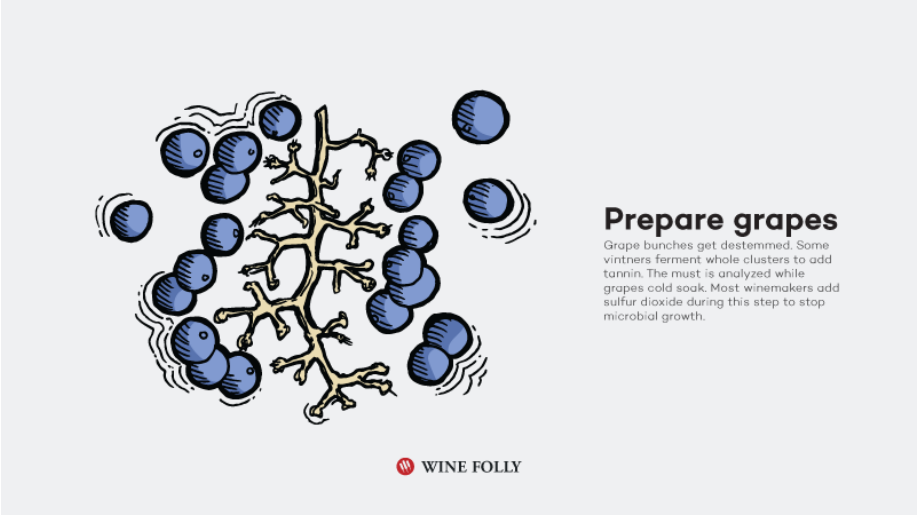
Grapes stop ripening once their picked.

Step 1: Harvest red wine grapes

Red wine is made with black (aka purple) wine grapes. In fact, all the color you see in a glass of red wine comes from anthocyanin (red pigment) found in black grape skins.
During the grape harvest, the most important thing to do is to pick the grapes at perfect ripeness. It's critical because grapes don't continue to ripen after they've been picked.

1. Grapes picked too early may result in tart and thin-tasting wines.
2. Grapes picked too late may result in wines that taste overly ripe and flabby.

For all winemakers, the grape harvest season is the most critical (and very tense) time of year!



Bolder reds like Cabernet get the stems removed before the fermentation.

Step 2: Prepare grapes for fermentation

After the harvest, grapes head to the winery. The winemaker decides whether or not to remove the stems or to ferment grape bunches as whole clusters.

This is an important choice because leaving stems in the fermentation adds astringency (aka tannin) but also reduces sourness. As an example, Pinot Noir often ferments with whole clusters, but not Cabernet Sauvignon.

During this step, grapes also receive sulfur dioxide to stop bacterial spoilage before the fermentation starts. Check out this eye-opening article about sulfites and your health.

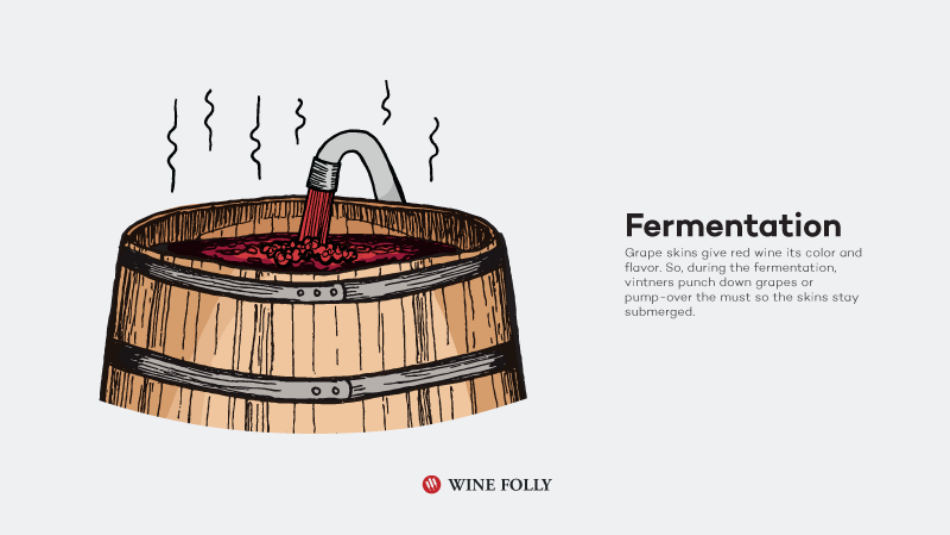
Yeasts like Saccharomyces Cerevisiae eat sugar and make alcohol.

Step 3: Yeast starts the wine fermentation

What happens is small sugar-eating yeasts consume the grape sugars and make alcohol. The yeasts come either from a commercial packet (just like you might find in bread making), or occur spontaneously in the juice.

Spontaneous fermentation uses yeast found naturally on grapes!

1. Commercial yeasts allow winemakers to produce very consistent wines year-in-and-out.
2. Natural yeasts are more challenging but often result in more complex aromatics.



A red wine fermentation takes about 2 weeks to finish.

Step 4: Alcoholic fermentation

Winemakers use many methods to tune the wine during fermentation.
For example, the fermenting juice gets frequently stirred to submerge the skins (they float!). One way to do this is to pump wine over the top. The other way is to punch down the "cap" of floating grape skins with a tool that looks like a giant potato masher.

1. Pumpovers rigorously extract lots of flavor from the grape skins and make for rich reds.
2. Punch downs extract flavors more delicately and thus they tend to produce more subtle red wines.

We can get an additional 15% more wine by pressing the skins.

Step 5: Press the wine

Most wines take 5–21 days to ferment sugar into alcohol. A few rare examples, such as Vin Santo and Amarone, take anywhere from 50 days to up to 4 years to fully ferment!
After the fermentation, vintners drain the freely running wine from the tank and put the remaining skins into a wine press. Pressing the skins gives winemakers about 15% more wine!

The creamy-chocolatey taste in wine comes from special winemaking bacteria.

Step 6: Malolactic fermentation (aka “second fermentation”)

As the red wine settles in tanks or barrels, a second “fermentation” happens. A little microbe feasts on the wine acids and converts sharp-tasting malic acid into creamier, chocolatey lactic acid. (The same acid you find in greek yogurt!)

Nearly all red wines go through Malolactic Fermentation (MLF) but only a few white wines. One white wine we all know is Chardonnay. MLF is responsible for Chardonnay’s creamy and buttery flavors.

Many red wines age in oak barrels.

Step 7: Aging (aka “Elevage”)

Red wines age in a variety of storage vessels including wooden barrels, concrete, glass, clay, and stainless steel tanks. Each vessel affects wine differently as it ages.

Wooden barrels affect wine the most noticeably. The oak wood itself flavors the wine with natural compounds that smell like vanilla.

Unlined concrete and clay tanks have a softening effect on wine by reducing acidity.

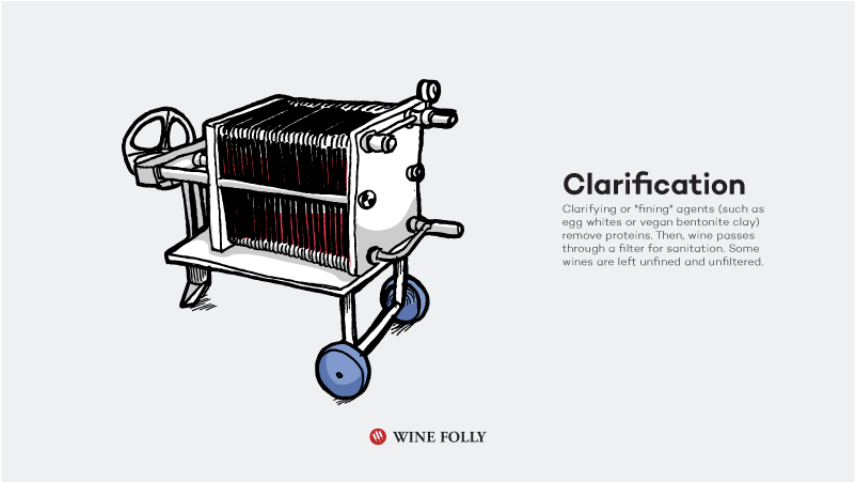
Of course, the biggest thing that affects flavors in red wine is time. The longer a wine rests, the more chemical reactions happen within the liquid itself. Some describe red wines as tasting smoother and more nutty with age.

Focus on texture if you have a chance to make your own wine blend.

Step 8: Blending the wine

Now that the wine is good and rested, it's time to make the final blend. A winemaker blends grape varieties together or different barrels of the same grape to make a finished wine. Blending wine is a challenge because you have to use your sense of texture on your palate instead of your nose.

The tradition of blending created the many famous wine blends of the world



Fining and filtering reduces the risk of bacterial spoilage.

Step 9: Clarifying the wine

One of the final steps of how a red wine is made is the clarification process. For this, many winemakers add clarifying or "fining" agents to remove suspended proteins in the wine (proteins make wine cloudy).

It's pretty common to see winemakers use fining agents like casein or egg whites, but there is a growing group of winemakers using bentonite clay because it's vegan.

Then, the wine gets passed through a filter for sanitation. This is important because it reduces the likelihood of bacterial spoilage.

Of course, a large group of fine winemakers do not fine or filter because they believe it removes texture and quality. Whether or not that's true is something for you to decide.

"Bottle shock" happens if a wine is opened too soon after being bottled.

Step 10: Bottling and labeling wines

Now, it's time to bottle our wine. It's very important to do this step with as little exposure to oxygen as possible. A small amount of sulfur dioxide is often added to help preserve the wine.

Many fine wines continue to age in bottle for years.

Step 11: Bottle aging

Finally, a few special wines continue to age in the winemaker's cellar for years. In fact, if you look up different types of red wines (like Rioja or Brunello di Montalcino) you'll discover that this step is considered essential for reserve bottlings.

So, the next time you open a bottle try to figure out what went into it!

Source : Winefolly